

# MOTOR AGE

## TRACK RACE MEET WITHOUT A FATALITY



MOTOR CYCLISTS LINE UP FOR THEIR FIRST RACE



BIG CARS WAITING FOR SIGNAL TO START

CHICAGO, Oct. 14—There is a well-satisfied lot of motorists in town this morning—members of the racing board of the Chicago Automobile Club which, after three attempts, managed to run off its fall meeting at Harlem race track Saturday afternoon. The reason for this is that there was not a fatality connected with the affair, although twice during the afternoon did the grim reaper hover in the background. Just twice did it appear as if his vigilance would be rewarded; but Providence interfered each time and the crowd was spared the usual fatality. There was not one of the members of the racing board who went to the meet but what had a premonition of disaster and if it had been possible to have called the meet off without great financial loss it is probable this action would have been taken. Chicago, however, probably has seen the last of racing on 1-mile circular tracks, for even if the American Automobile Association continues to foster this alleged sport neither one of the local organizations will care to handle meets of this character—some promoter will have to take up the work.

The dangers of this sort of competition were clearly illustrated during the afternoon. There could be no complaint made of the track. It was in as good condition as it is possible to get the almost flat horse tracks. It was hard and there was very little dust. Still, one car dashed through a fence and uprooted a small tree, while another ran into a fence and gave the crowd an extra thrill. On a track designed especially for motor racing it is hardly possible that either of the

accidents could have taken place. The Chicago Automobile Club certainly can congratulate itself that it went through the day without a fatality.

The first mix-up came after most of the card had been cleaned up—in fact, both of them were in the same race, the half-hour trial. G. F. Sulzberger's six-cylinder Stearns, driven by a factory expert, C. P. E. Schilpp, had cleaned up the pursuit race and the 10-mile open. It had given positive proof that it was the fastest car on the track by doing 4 miles from a standing start in 3 minutes 58 seconds—better than a mile a minute—and it had started to romp away with the feature event in as easy a manner as it had scored

in the other two big-car contests. From the pistol it had pulled away from the field, which included an Apperson Jackrabbit, a Tinscher, Cadillac, Ford six, Mitchell and Pope-Toledo and the spectators had settled back to enjoy another spectacle of high speed and daring work on the turns by Schilpp. The big car was fairly burning up the back stretch and gaining at every revolution of the wheels. At the far turn the spectators saw the car refuse to take the bend, dash forward through the outside fence and smash into a small tree. Instantly all was confusion in the grand stand. The crazy ones forgot that there were other cars on the track going at full speed and they climbed the fence and rushed for the infield at the imminent peril of their lives. It is a wonder that many of them were not mowed down in their tracks. But Providence was again on hand and not one of the foolish ones was struck.

It did not take long for the crowd to get to the scene of the accident and the ambulance was there also. But there was not much work to do. Schilpp was picking himself up and his mechanic, R. Chevalier, was stretched out on the ground. As for the car itself—that came mighty near being a wreck. The radiator was smashed and so was the body work, although the engine was uninjured. The tree was cut off clean as a whistle.

According to Schilpp's statement, it was a defective tire that did the mischief. Before the race started its condition had been noted and it was because of this that the officials had made it a half-hour race instead of an hour contest. Schilpp



ANNOUNCER W. R. JOHNSTON



WHERE THE STEARNS WENT INTO THE FENCE

said the tire had gone wrong and that this had affected the steering so it was impossible to keep away from the fence. The doctors picked up Chevalier, who seemed more stunned than hurt. This hurried diagnosis was borne out after a careful examination of the mechanic at the Oak Park hospital, where he was taken by the ambulance.

The second mishap came at the end of the race and after the Cadillac had won. The Tinchler driven by Allan Pirie in endeavoring to pass the Mitchell ran into the fence to avoid a collision. Luckily no one was injured and the other cars managed to get by without becoming involved in the mix-up. In practice Friday another Tinchler, driven by Rayfield, threw a front and rear tire, turned over and went through the fence. A wheel was broken and Rayfield so shaken up he could not drive Saturday.

It was a good meet as meets of this sort go. It was well managed and the program was a brilliant one, including two novelties which were tried for the first time. The first one was a pursuit race and the other the half-hour event, originally billed for an hour trial. The former, however, proved to be far more sensational. The honors of the meet went to the Stearns, Cadillac, Stoddard-Dayton and the Ford. The motor cycle events were captured by one man—C. W. Van Sickle on an Indian, who won the three contests, one of which was a handicap.

In the first race, which was a 3-mile event for cars listing at \$1,500 and under, two Fords, a Buick, a Stanley steamer and a Reo lined up. The Stanley steamer was looked upon to take this, but in the first mile it got in trouble and the two Fords blazed the way. The Bartol Ford set the pace, followed by the Mudd Ford, with the Buick and Reo trailing. This was the way in which they crossed the tape. There was not much of a race about this—it was more of a parade.

Then came the 5-mile for roadsters and runabouts listing at \$3,000 and under and the contestants were a Ford six, a Cadillac, a Buick, and an Autocar. The Ford started setting the pace, but 2 miles

stopped it through the exhaustion of the oil supply. This left it clear sailing for the Cadillac which had no difficulty in holding off the Buick and the Autocar. Webb Jay was billed for an exhibition mile following this, but the old steam king dodged the issue and the motor cyclists held sway.

After this the members' event was put on. This was a novelty in that a 12-minute standard for 5 miles was set, the object being to see how close to that time the contestants could come. It furnished an amusing spectacle. The trade was barred from this and the speedometers were sealed up so that the hand could not be watched. At first each man had his own idea of a 2 minutes 24 seconds pace and the field soon was strung out for a quarter of a mile. Chairman Gregory, of the racing board, was supposed to be the wise one, and many stuck to him. He had good judgment, but it was not equal to that of W. G. Lloyd, Jr., in a Stoddard-Dayton, who set his own pace, finishing



TAKING CHEVALIER TO THE HOSPITAL

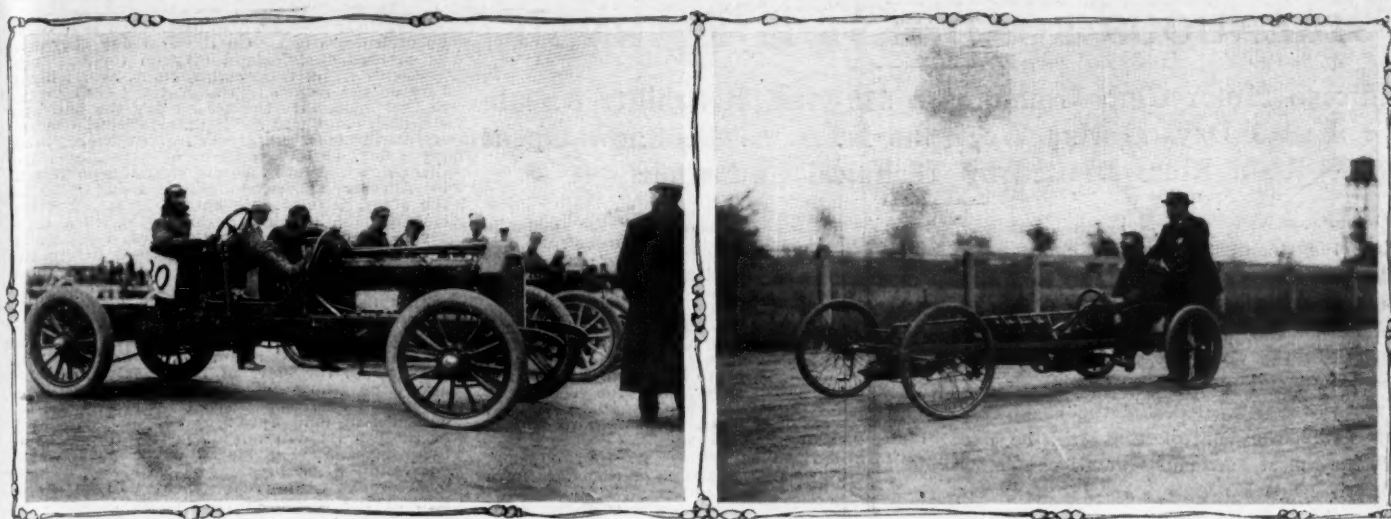
the 5 miles in 11 minutes 57½ seconds, just 2¾ seconds off the mark. Frank Mudd in a Ford was second with 12 minutes 7 seconds and Gregory in a Thomas third with 12 minutes 7½ seconds.

Only six of the eleven cars nominated for the pursuit race started and they were placed an eighth of a mile apart, with the Apperson Jackrabbit, with Dave Buck at the wheel, at the tape. Next was the Packard, then the Ford six, Tinchler, Cadillac and Stearns. This step-ladder arrangement made a gap of three-eighths of a mile between the Stearns and the Jack because of the scratches. The starting signal was the dropping of a flag by the starter in midfield and Buck got away poorly through inability to see it. Before Big Dick got going the Stearns was well up and in the back stretch Schlipp collared his rival. The Tinchler never got away from its mark, Pirie killing the engine. The Ford and the Packard soon were caught and only the Cadillac was left for the Stearns to catch. With



DAVE BUCK IN APPERSON JACKRABBIT IN PURSUIT RACE





LINE-UP FOR THE TEN-MILE OPEN, SCHILPP ON OUTSIDE

R. W. HARROUN IN EIGHT-CYLINDER SNEEZER

seven-eighths of a mile to make up on the Foster entry the big Stearns had to buckle down to business. At exactly 4 miles from the point Schilpp and the big Stearns six started from he collared the Cadillac. The timers had clocked the Stearns and the watches showed 3 minutes 58 seconds for the distance.

The Stearns, Apperson, Cadillac and Harroun started in the 10-mile free-for-all and again there was nothing to it but the six. It soared away from its field with great ease. At the finish it was not very far off from lapping the Jackrabbit, while the sturdy little Cadillac came in for third. It was in this race that an amusing incident occurred. Harroun was driving the Sneezer, the eight-cylinder air-cooler in which he performed at Ormond last winter. In front of the grand stand one of the cylinder heads blew off and rolled onto the track. It was a mere shell and one of the officials attempted to pick it up. He changed his mind with great haste when he discovered it was hotter than he had

anticipated, dropping it very quickly.

A grand struggle was anticipated in the half-hour race, for in this it was expected the Thomas racer driven by LeBlon in the last Vanderbilt would try conclusions with the Stearns. C. A. Coey had nominated it and in practice had made fast time. But Coey found he had trouble with his gears, being unable to keep in his high. Therefore, he was compelled to stay in the paddock, leaving the Stearns, Cadillac, Apperson, Ford, Tincher, Mitchell and Pope-Toledo to fight it out. From the gun the Stearns started making it a run-away and had it not been for the accident it probably would have landed a third victory. With the Stearns out the Jackrabbit assumed command but was immediately challenged by Pirie in the Tincher. This resulted in the warmest fight of the day. Buck had the pole and Pirie fought desperately to oust him. The two would come down the straight neck and neck, then Buck would hold off Pirie on the turns. Finally Pirie had gasoline troubles

through using ether in the mixture and was forced to retire for a time. Buck then plunged along and the story seemed told. But it did not turn out this way. A belt slipped off the Apperson oiler and Buck had to go to quarters to repair the damage. He had 2 miles lead when he stopped and while he was off the track the Cadillac made this up and added more to it. Buck soon put on a new belt and came back. He tried hard to overhaul the Cadillac, but the smallest-powered car in the race was not to be denied and rolled home the winner. Summary:

Ten-mile open motor cycle race for machines of 30.65 cubic inches' capacity, standing start—C. W. Van Sickle, Indian, won; Fred Hyck, Harley Davidson, second; H. Bernard, Harley Davidson, third. Time, 12:46.

Three-mile free-for-all for cars listing at \$1,500 and under—R. L. Bartol, 15-horsepower Ford, won; Frank X. Mudd, 15-horsepower Ford, second; W. Willett, 24-horsepower Buick, third; John Kelly, Jr., 16-horsepower Reo, fourth. Time, 4:40. Also started: Phil Johnson, Stanley steamer.

Five-mile race for runabouts or roadsters listing at \$3,000 and under—George Farnsworth, 20-horsepower Cadillac, won; W. Willett, 24-horsepower Buick, second; Frank Vaughn, 30-horsepower Autocar, third. Time, 6:36. Also started: E. W. Disher, Ford six.

Three-mile open motor cycle race for machines with 30.65 cubic inches' capacity—C. W. Van Sickle, Indian, won; Fred Hyck, Harley Davidson, second; H. Bernard, Harley Davidson, third. Time, 3:49 4-5.

Five-mile Chicago Automobile Club members' race, contestant coming closest to 12 minutes for 5 miles to win—W. G. Lloyd, Jr., 20-horsepower Stoddard-Dayton, won; time, 11:57 2-5; Frank X. Mudd, 15-horsepower Ford, second; time, 12:07; C. E. Gregory, 40-horsepower Thomas, third; time, 17:07 1-5. Also started: J. L. Schureman, Corbin; Carroll Shaffer, Stevens-Duryea; W. C. Gillett, Corbin; Louis A. Howard, Stoddard-Dayton; L. I. Bregman, Thomas.

Pursuit race for stock cars—Charles P. E. Schilpp, 45-horsepower Stearns six, won; time for 4 miles, 3:58. Also started: George Farnsworth, Cadillac; Dave Buck, Apperson; E. W. Disher, Ford six; H. N. Scott, Packard; Allan Pirie, Tincher.

Ten-mile free-for-all, flying start—Charles P. E. Schilpp, 45-horsepower, six-cylinder Stearns, won; Dave Buck, 55-horsepower Apperson Jackrabbit, second; George Farnsworth, 20-horsepower Cadillac, third. Time, 10:22. Also started: R. W. Harroun, Harroun.

Half-hour race, reduced from 1 hour—George Farnsworth, 20-horsepower Cadillac, won, distance 23 1/4 miles; Dave Buck, 55-horsepower Apperson Jackrabbit, second, distance 23 1-16 miles; Curtis Betts, 30-horsepower Mitchell, third, distance 22 miles; Allan Pirie, 60-horsepower Tincher, fourth, distance 18 miles; E. W. Disher, 40-horsepower Ford, fifth, distance 9 miles; G. Schoeneck, 20-horsepower Pope-Toledo, sixth, distance 7 miles; C. P. E. Schilpp, 45-horsepower Stearns, seventh, distance 1 1/4 miles.

Ten-mile motor cycle handicap—C. W. Van Sickle, 2:30, Indian, won; E. L. Hess, 2:30, Reading Standard, second; H. Bernard, 1:46, Harley Davidson, third. Time, 11:00.



PUSHING TINCHER OUT OF THE WAY AFTER MITCHELL INCIDENT

## STRENUOUS ROAD TEST IS PLANNED

**Chicago Motor Club Promoting a 630-Mile Reliability Run to Last 3 Days During Week the N. A. A. M. Show Opens—Rigid Rules Drafted by Technical Committee**

Chicago, Oct. 15—Not until today did the contest committee of the Chicago Motor Club finally complete the rules that will govern the 630-mile 3 days' reliability test which it is promoting for the week the Coliseum show opens. But the time spent on framing up the regulations was not wasted, for the committee has evolved a contest that will be one of the most strenuous ever attempted, yet of such a nature that a manufacturer should welcome it in order to bring out the strong points of his construction at a time when he can reap the most benefit—just before the show.

As planned by the motor club, the contest will take place November 26, 27 and 28—Tuesday, Wednesday and Thursday—before the opening of the Miles show on Saturday, November 30. The first day the cars will be sent to South Bend, Ind., and return, a distance of 230 miles. The second day the trip will be to Rockford, Ill., and back, 200 miles, and on the third day the contestants will be sent to Ottawa, Ill., and back, another double century. The cars will be garaged each night and everything possible will be sealed. Confetti and pilot cars will blaze the way each day and the observers must be nominated by the entrants themselves, no observer going on the make of car he represents.

The field will be divided into three classes, but all the cars will be competing for the same three prizes, the division being made in order that different time schedules may be made for the different-sized cars. Class A, for cars listing at over \$3,000, will be asked to average 20 miles an hour; class B, for cars from \$1,800 and including \$3,000, 17 miles an hour, and class C, for cars at \$1,800 and under, 14 miles an hour.

For the first entry from a maker \$100 is asked, but subsequent nominations can be made at \$50 a car. The entries close at midnight Thursday, November 21, and the late comers will have to pay 50 per cent more to get in up to midnight of Saturday. Charles P. Root, 1200 Michigan avenue, chairman of the contest committee, will receive the entries and furnish information and entry blanks to those seeking them. Blanks will be out this week and already there are enough tentative entries to assure the reliability run being a success. Among those who already have partially pledged support are the Locomobile, Pierce-Arrow, Dragon, Wayne, Rainier, Diamond T, Cadillac, Stoddard-Dayton, Matheson and Pope-Toledo, two Pierces, two Dragons and as many Locomobiles being promised the entry committee, which fully expects to get between fifty and seventy-five cars. The full text of the rules is as follows:

**PURPOSE**—The purpose of the 600-mile sealed-bonnet contest is to demonstrate the reliability of all styles of motor cars under the most severe conditions and at a season of the year when all buyers are arranging for the next year's machine.

**ROUTE**—November 26, Chicago to South Bend, Ind., by way of Michigan City and return over same route. Distance 230 miles. November 27, Chicago to Rockford, Ill., by way of Elgin, returning over same route, distance 200 miles. November 28, Chicago to Ottawa, Ill., by way of Aurora, returning over same route, distance 200 miles.

**CLASSIFICATION**—Class A, 1907 or 1908 stock touring cars, runabouts or roadsters catalogued at over \$3,000; class B, 1907 or 1908 stock touring cars, runabouts or roadsters catalogued at over \$1,800 and including \$3,000; class C, 1907 or 1908 touring cars, runabouts or roadsters catalogued at \$1,800 and under.

**ENTRIES**—The entry fee is \$100 for the first car and \$50 for each subsequent entry of the same make of car by the same entrant, check for same to be made payable to the Chicago Motor Club. Entries close at midnight, Thursday, November 21, and entries made after that and until midnight, Saturday, November 23, will be charged 50 per cent extra. Entries are to be forwarded to Charles P. Root, chairman contest committee, Chicago Motor Club, 1200 Michigan avenue, Chicago. No entry will be accepted unless accompanied by entry fee and all car specifications asked for in the entry blank, together with name of observer and his address. Entry fee will not be refunded in case car fails to start or is disqualified during test. Each entrant provides at his expense an observer who must be a factory or selling force representative and which observer will not ride on the car of the entrant who nominated him.

**CAR EQUIPMENT**—Cars must be of 1907 or 1908 stock construction and carry throughout the run a catalogued equipment of lamps, horns, body fittings, etc. The load for each car will be one or more drivers, an official observer, mechanic and other persons to make up the full passenger load as per catalogue. A car sold to carry five or seven passengers must carry seven or be equivalent in dead weight on the following basis: 125 pounds for each of the two passengers for the extra tonneau seats and 150 pounds per passenger for the remaining seats of the tonneau not occupied by passengers. This dead weight will be made up by sand bags provided by the Chicago Motor Club. Three-passenger roadsters must carry three persons or their equivalents in dead weight at the rate of 150 pounds per person. Standard runabouts must carry two passengers if not regularly sold with the third or rumble seat.

**GARAGING**—Contesting cars must be handed over to the contest committee at its club garage Monday morning, November 25, at 9 a. m.—the day preceding the contest—so that all sealing of parts can be done by the technical committee. The cars will remain in the possession of the contest committee until the following morning, when they will be handed over to their drivers previous to the start of the first day's run. At the completion of each day's run the cars will be garaged under club supervision at the club garage and repairs, replacements, adjustments or attention of any nature will not be allowed on the cars from the time they are handed over to the club each night until delivered to the driver the following morning. Gasoline and water tanks will be filled each night and each morning before the start, and half an hour will be allowed in which the drivers can oil up.

**ON THE ROAD**—The cars will be started each morning at an hour to be announced to the drivers the evening before the start or on the morning of the start. The order of the start on the first day will be as follows: Cars in class A, cars in class B and cars in class C, the order of precedence in each class being according to the order in which the entries are received. The running schedule for each day will be handed to the driver and observer the morning of the start and will approximate an average from start to finish, elapsed time—20 miles per hour for class A, 17 miles per hour for class B and 14 miles per hour for class C. This schedule will vary slightly according to the condition of the roads. Drivers will be given a printed direction of the roads, containing distances and turns, as well as an outlined map of the route. A confetti car will precede the contestants each day, marking the route by strewing confetti at the turns.

**CHECKING**—Cars will be checked four times on each day's run. On the first day they will be checked at Michigan City on the out trip, at South Bend, the turning point, at Michigan City on the return trip and at the club garage at the finish. On the second day the half-way checking point will be Elgin, cars being checked out in the morning, checked at Rockford, turning point, and checked in at night. On the third day the intermediate checking point will be Aurora, Ill., checking also being done at the start, Ottawa, the turning point, and the club garage at night. Contesting cars must arrive at each checking point at a scheduled time, which will be given to them before the start of the run and in which schedule there is a 10-minute leeway. Failure to check in within this leeway will result in penalizations as per penalization code.

**SEALING OF CARS**—Seals will be affixed to the following parts of the cars on the day previous to the start of the test: Hub caps, differential housings, transmission case and cover, coil box, tool box, battery case, radiator, bonnet and mud apron or sodpan. Breaking of these seals will not disqualify the car, but incur a penalty as stated under penalization code, and after breaking a seal any adjustment, repairing or replacement will be penalized by the length of time taken to affect it. Cars must carry mud aprons or sodpans extending from the front of the motor under the body and enclosing the motor, clutch and transmission parts. All tools for car and tires will be carried in a special tool bag furnished by the Chicago Motor Club and which will be handed over to the observer, who will be given the key for same. The use of tools other than those carried in the bag will result in disqualification. When tools are needed the operator or mechanic will get them from the observer who will keep strict account of the tools used and see that they are delivered to him at the completion of the work. Carrying of other tools on the part of operator or mechanic or other passengers or the concealing of them in the car will result in disqualification. A seal that is broken on one day of the run will be replaced on the evening of that day and during that day on which the seal was broken each successive time that the operator, mechanic or others require access to the portion of the car protected by the seal the car will be penalized the same as if the seal was broken on each occasion. Repairs, adjustments or replacements on any unsealed part of the car made during the run will be penalized according to the time spent as per penalization code.

**PENALIZATION CODE AND SEALS**—Breaking bonnet, coil box, transmission, differential, radiator or hub cap seals, 25 points for each time a seal is broken or access gained to the part after a seal is broken. If it is impossible to affix seals for the protection of the brakes or flywheel clutch, universal joints, etc., a penalty of 25 points is incurred when any of these parts has to be adjusted, repaired, replaced or otherwise worked upon. In addition to this there will be a penalization according to the length of time needed for the adjustment, repair, replacement or work done.

**TIME**—At checking stations a car is given a 10-minute leeway. If due at a control at 10 o'clock it has until 10:10 to arrive. For each minute for the first 5 minutes after this leeway the penalization is 1 point a minute. For each minute of the second 5 minutes it is 2 points a minute. For each minute of the third 5 minutes it is 3 points a minute, and for each successive 5 minutes the penalization increases 1 point a minute. Cars can not pass a checking station before the time marked for arrival on their schedule.

**WORK**—In penalizing for work done on the car by way of replacement, adjustment, repair or work of any nature, 2 points a minute per man are incurred for the first 5 minutes, 3 points a minute for the second 5 minutes, and 4 points a minute for the third 5.

**REPLACEMENT**—For each additional 5 minutes the penalty increases 1 point per minute. Where a replacement is made this time penalization is doubled. To explain: In making a replacement which requires 5 minutes the penalty would be 20 points or at the rate of 4 points a minute. This increase is in order to cover the value of the part replaced.

**FINAL INSPECTION**—At the completion of the test all cars finishing the third day's run will be subjected to an examination of parts by the technical committee of the Chicago Motor Club, which examination will cover such chassis parts as front axle, steering pivots and connections, springs, frame, wheels, brakes, control levers, tires, etc., and such body parts as fenders, running board, body, doors, upholstery, lamps, lamp bracket, dash, etc. These will be classified under the head of good, medium and bad. To explain: A car with a perfect front axle will have the good classification on that score. Another car with a slightly sagged front axle will receive the medium classification and the third car with a very much sagged axle will



get the bad classification. In case of a tie the total number of good, medium or bad classifications will be a factor in determining the winner. In addition to this there will be a final running of the car over a certain distance to determine if all of its cylinders are working, if it can make a certain speed over a measured course and if its brakes are in good condition. Contesting cars will be marked on these different scores.

**OBSERVERS**—Observers will be appointed by the entrants, one observer for each car, and the entrant must pay the observer's expenses. Observers will not ride on cars of the same make as named by their nominator and will not ride on the same car on 2 successive days. Each observer will be responsible for the tools of each car as per regulation under sealing of cars. Each observer must note the length in minutes and seconds of each stop made, what work was done on the car during the stop, what tools were needed for the work and how many persons assisted. In case of breaking a seal the observer will note the seal broken and must report the number of times access is had to the part protected by the seal. The observer must see that the running card is stamped by the checker at each checking station, that a car does not pass a checking station before its time and that the route is followed. Each observer must report at the club garage half an hour before the start each morning, when he will be assigned to his car and which car he must remain with until checked into the club garage at night. After checking in he must give a written report of the performance of the car during the day, together with the penalizations incurred. No car will be checked out from the starting point or from a control or checked in at night without its observer.

**TIRES**—All tire repairing must be done during the elapsed running time of the car. A car late in arrival at a checking station or at the club garage due to tire repairing will suffer the time penalization, the contest committee believing that the time schedule together with the leeway offers sufficient time for tire repairs. In tire repairs all passengers and observer may assist.

**DISQUALIFICATION**—Disqualifying of any car rests with the referee, who will investigate the conditions as reported by the observer, driver, passengers and other complainants.

**PROTESTS**—Contestants entering protests must submit the same in writing at the conclusion of any day's run together with a deposit of \$10, which will be retained by the Chicago Motor Club if the protest is not sustained. In case of protests those making them must provide witnesses and other information.

**AWARDS**—The winner, the car with the fewest penalizations, will receive a solid silver gold-lined trophy. To the car with the next smallest penalizations will be given a smaller solid silver trophy, and to the car with the third least penalizations a still smaller trophy will be awarded. All cars compete for these trophies, the difference in the contest between the small cars and the large ones is that the smaller ones have a schedule of 14 miles per hour while the biggest class has 20 miles per hour.

**ACCIDENT LIABILITY**—It will be assumed that every contestant is acquainted with the rules of the contest and by entering agrees to abide by the said rules. In the event of a dispute regarding the interpretation of the said rules the decision of the contest committee shall be final, the committee reserving the right to alter or amend these rules as it may deem expedient until noon, Monday, November 25, the day preceding the contest. Entrants shall hold the Chicago Motor Club harmless and indemnify it against all losses or damage resulting directly or indirectly or growing out of the operation, management or control of the car entered by them from the time the car is handed over to the contest committee on the morning of Monday, November 25, 9 a. m., until delivered to them at the completion of the test. The Chicago Motor Club will not be responsible for damage done to any car, passengers or contents during the test or for the theft of any car, accessory or contents, the car at all times being at the entrant's risk.

**WEIGHING**—During the contest all cars will be weighed, with their full equipment, and full tanks, but without passenger load.

**OILING**—In order to permit those entrants who have grease cups attached to their motors and for the convenience of those with mechanical oilers located under the bonnet, bonnet seals may be broken each evening immediately after the car has been checked in and in the presence of the observer and club official the motor oiling may be done, after which the bonnet will be resealed.

**GENERAL**—Motors may be stopped any time on the daily trip without penalization; the cars may be stopped on the road without penalization, providing work is not done on them; gasoline, water and oil may be taken on at any point on the road, providing the hood is not raised. Tire repairs can be made at any time on the road.

## FORCED TO USE TRACK

### With No Road Events Importers Favor Continuance of Racing on Circular Courses

New York, Oct. 14.—The importers have formerly pronounced in favor of a continuance of track racing under certain restrictions in view of the present absence of road contests. The Importers' Automobile Salon's tracks and contests committee has instructed its representative on the special A. A. A. committee as follows:

That the sentiments of the members of the Importers' Automobile Salon, as expressed through its trades and contests committee, in regard to the granting of the sanctions for the holding of race meets on circular tracks, or those originally intended for horse racing, are that the Importers' Automobile Salon, while not believing in track contests or in the promotion of same, is of the opinion that in the absence of road contests track races may be held where the proper precautions are observed:

When such track is not of a less circumference than 1 mile;

When such track shall have been reasonably banked at turns and have been oiled sufficiently to insure the vision of drivers not being obstructed by dust;

When the entrants have been limited to a safe number for the track and events, and

Where proper precautions are taken for the protection of spectators and drivers.

The trades and contests committee of the salon also asks the A. A. A. racing board to provide for classification of cars by the adoption of the standard formula for horsepower racing already endorsed by the A. L. A. M. and suggests that the salon be represented in the racing board by the following resolutions:

Resolved, That the secretary be instructed to communicate with the A. A. A., asking its cooperation with this association in the effort to have generally adopted a standard formula for the determination of horsepower, for use in the classification of contestants in future races, contests and tours, and to recommend the adoption of the formula accepted by the Royal Automobile Club of Great Britain and Ireland for a like purpose, the same having already been adopted by one of the leading American manufacturing associations.

Resolved, That this committee suggests to the A. A. A., in view of the fact that foreign interests are so largely represented in the race meets of this country, and are likely to be more so in the future, that it is the reasonable expectation of the committee that the Importers' Automobile Salon have at least one member on the racing board of the A. A. A.

The attempt of T. Francis Moore and his Metropolitan Automobile Association to pull off a stock car race on Long Island having failed through the refusal of the Nassau county supervisors to give permission for the use of the roads, Moore has turned his attention away from Long Island and in the direction of Westchester county. It is said that the Westchester officials and citizens view with favor the promotion of such a race and have given encouragement that the required permission and course will be forthcoming for such a contest next spring. Mr. Moore and a party of racing enthusiasts has inspected and practically decided upon a course in Westchester county, the location of which is at present withheld. It is a 42-mile circuit with fifteen easy turns and but one steep hill. Thirty miles of the course are macadam and 6 miles fairly good country dirt road. The course passes through two small towns where controls

would probably have to be established.

Robert L. Morrell is to head the committee and John McCullough, former chief of police of New York, is to have charge of the guarding of the course. It is planned to form a promoting organization of which the Metropolitan Automobile Association is to be the nucleus. It is proposed to run the race on April 20, to limit it to regularly built and catalogued chassis, limit the field to forty cars and charge \$1,000 entry fee.

On Saturday there was published here a challenge by E. R. Thomas, of Buffalo, to the Fiat and Renault cars, winners of the two 24-hour races at Morris park, to meet the Thomas, which won the Brighton Beach twice-around-the-clock race in a 24-hour contest at Morris park. Coupled with the challenge was the formal announcement of Mr. Thomas' intention to retire permanently from track racing. Paul LaCroix, on behalf of the Renault, and E. R. Hollander, speaking for the Fiat, promptly accepted the challenge. Alfred Reeves, of the Motordrome Club, says that any promoter is welcome to the use of Morris park for such a race.

Chairman Thompson, President Hotchkiss and other A. A. A. leaders are discussing plans for a Florida meet.

### HOLLANDER GETS THE FIAT

New York, Oct. 14.—Rumors have been rife along the row ever since E. R. Hollander retired from the Hol-Tan Co. and returned from a visit to Turin that he had secured the American agency for the Fiat. As a matter of fact it was hardly any secret among those at all well informed that his mission to Europe had been successful, though he refused to tell under just what conditions the Fiat would be in future handled in this country. Mr. Hollander has at last broken silence and formally announced the formation of the Fiat Automobile Co., with himself at the head as president. So largely are the leading men in the Fabbria Italiana Automobili Torino financially interested in the Fiat Automobile Co. that the latter practically is a branch house. Mr. Hollander states that the new company has contracted for 500 cars and the Turin company has agreed to supply any possible demand up to 1,000. To market this big output it is announced that branch houses will be established in all the big cities with sub-agencies in the smaller cities. An important feature of the new invasion of the Fiat will be a very considerable reduction in prices—about 50 per cent—so as to compete in that particular with the high-priced American cars. Cornelius H. Tangeman, president of the Hol-Tan Co., declares he will not have any announcement to make of the future plans of his company before show time. The Fiat Automobile Co. today signed a lease of the big show room at Broadway and Fifty-ninth street in the American uptown building where the Fiat will be located.

## SHOW RUSH IS ON IN NEW YORK

### Seventy-one Exhibits of Complete Cars Are Promised for Grand Central Palace Affair—Clamor for Space on Part of Late Ones—Gossip from Gotham

New York, Oct. 15—At the offices of Secretary Butler, of the Automobile Club of America, and of General Manager Reeves, of the American Motor Car Manufacturers, as might be expected, the fierce eleventh-hour rush of preparation for the opening of the Grand Central palace show on Thursday night, October 23, is on. There have been some withdrawals and there has been a scramble of late-comers to secure the spaces thus made vacant. According to the present count there will be seventy-one exhibits of complete cars made up of displays by forty-five of the fifty-one members of the independent association and by twenty-six other makers. Present estimates of the total number of exhibitors range from 240 to 250, but applicants for space are still coming up to the captain's office.

Three floors of the palace will be used this year and furnish an aggregate of 65,000 square feet of exhibition space. Of this the members of the A. M. C. M. A. have taken 23,000 square feet, covering first choice on the main floor and some 3,000 square feet besides.

Photographs of the decorative scheme to be employed at the Grand Central palace show have been sent out. The artist has had no easy task in furnishing an ornate background for the exhibits in a building not designed with a view to the possibilities of decorative effects. The scheme chosen is a combined outdoor and woodland effect. In keeping with the season there will be a liberal use of autumn boughs and leaves, which will be banked up against the columns, panels and balconies. No pretensions whatever are made that an elaborate scheme of embellishment has been attempted or secured.

As last year there will be a private view for members on the afternoon of the show's opening. Special nights have been designated for city officials, merchants, the militia and society. The schedule for the week follows:

Thursday—afternoon, October 24—Private view of exhibition.

Friday, October 25—Merchants' night.

Saturday, October 26—City officials' night.

Saturday, October 26—Smoker, clubhouse of Automobile Club of America.

Sunday, October 27—Open house at home of Automobile Club of America.

Monday, October 28—Engineers' night.

Tuesday, October 29—Second annual show luncheon of the American Motor Car Manufacturers' Association, at Hotel Manhattan, 1 p. m.

Tuesday, October 29—Society night. Admission \$1 instead of 50 cents.

Wednesday, October 30—Meeting committee of management American Motor Car Manufacturers' Association.

Wednesday, October 30—Meeting board of governors Automobile Club of America.

Wednesday, October 30—Military night.

Wednesday, October 30—Conference, trade associations with American Automobile Association, 437 Fifth avenue.

During show week there will be meetings

of the American Automobile Association and various smokers, luncheons and conferences of all sorts.

With the season chosen practically assuring good weather, exhibitors are preparing to exploit their cars by outside demonstration more fully than at previous shows, where winter has made the possibility of outdoor try-outs doubtful.

In connection with the club show the Aero Club of America will hold its third annual exhibition of balloons and airships. Of these there will be on view no fewer than ten fully equipped airships, including J. C. McCoy's America and A. R. Hawley's St. Louis, which will be competitors in the international balloon contest at St. Louis this fall.

With the Automobile Club of America's show nearest at hand the buzz of preparations for it is now naturally the louder; but the management of the A. L. A. M. show at Madison Square garden is by no means idle. The distribution of space was made and the list of exhibitors at the garden was settled many weeks ago. Now there is practically nothing left to be done but to hand over the garden to the decorators and builders and throw open the gates for the cars of exhibitors as soon as the building shall be ready for them.

Assurances given by the show committee of the Importers' Automobile Salon to the members at a meeting held last Friday show that the receipts from the space already allotted on application will be greatly in excess of all possible expenditures in connection with the show.

The meeting of last Friday was largely attended. The work of the show committee was presented in a report of considerable length by E. R. Hollander, and was received with a great deal of satisfaction, especially in reference to the amount of space that had already been applied for with the show still 3 months away. The committee reported that it had found it necessary to utilize the entire mezzanine balcony as well as the platform to accommodate the accessory exhibits. The elevated platform has not been used for a number of years for accessories at all. In the last A. L. A. M. show this was used for vehicles.

The railway passenger associations east of the Rocky mountains have granted a reduced fare concession to the American Motor League during both New York show weeks on the following plan: All members residing in the New England states, New York, Pennsylvania, Maryland, District of Columbia, New Jersey, Delaware, Canada and the southeastern states must

obtain certificates from the ticket agents when buying their going tickets, which must be done not earlier than October 25 or later than October 31; but tickets purchased within this limit may be used at any time during the show weeks at New York. On reaching New York each member should at once file his certificate with the secretary who can be found by inquiring at the bureau of information, and have it validated. Members holding certificates may return home at one-third the usual rate of fare at any time on or before November 11. Members residing west of Buffalo and Pittsburg and within the Central Association territory must at once obtain from the league secretary, Vanderbilt building, New York, an official card which upon presentation to any ticket agent will entitle the holder to a round-trip ticket to New York at a special rate, equivalent to the one and a third plan. The secretary of the A. M. L. will issue the official card only to members whose names are on the roll by October 25, on which day the roll is delivered to the railway officials. Members living west of Chicago, Peoria and St. Louis may come to either of these places by paying the 2-cents-per-mile fare and then by presenting the official card obtain the special round-trip rate. There will be only 3 selling days for the sale of reduced rate tickets in the central territory, to-wit, October 25, 26 and 27. Secretary Brockway gives notice that all members who joined the league during last year's show season must renew before receiving the benefits of these rates, excepting those who actually attend the meeting of the A. M. L. during show week. Detroit and vicinity members are advised to go to New York via the Grand Trunk line and thereby obtain their through certificates and avoid the inconvenience of traveling by means of the card plan.

The American Automobile Association has issued the following notice regarding railroad fares: "Members of the A. A. A. desiring to attend the conventions to be held in New York city, during the weeks of the automobile shows, will be entitled to reduced railroad fares, and circular announcements containing full particulars will be forwarded not later than October 15 for distribution among members." This is signed by Frederick H. Elliott, secretary.

#### Big Commercial Show Promised

Chicago, Oct. 14.—When the first annual commercial vehicle exhibit, in conjunction with the seventh annual show at Chicago, was announced, it was the opinion of the management and of the directors of the National Association of Automobile Manufacturers that if twenty exhibitors could be obtained a good start would have been made and that the time when commercial cars had attained such importance as to warrant a separate exhibition would have been suitably marked. The show is still nearly 2 months off, but with the closing of last week there were twenty-four exhibitors on the list and at



least eight others in correspondence with the management. It is reasonably certain that there will be at least thirty exhibits of cars, fire apparatus and farm implements. The management was fortunately able to secure a building, only four blocks from the Coliseum and First Regiment armory, which affords 35,000 square feet of floor space. It is intended that the admission shall be largely by invitation. Each exhibitor will be supplied with 1,000 invitation cards, to be mailed to interested persons. All members of the Illinois Manufacturers' Association have been invited to supply the names of people who are likely to be interested and this work is being extended in other directions, with the intention of covering the entire country. The exhibitors of cars, up to Saturday last, were the Studebaker, Franklin, Buckeye, Rapid, White, General Vehicle, Commercial motor truck, Logan, Reliance, Lear, Pope, Mitchell, Knox, Meiselbach, Pittsburg motor vehicle, Johnson Service, Advance Mfg. and Couple-Gear companies, Gifford-Pettit Mfg. Co. and Sayers & Scovill. The pleasure vehicle section, which embraces all the ground covered heretofore and the Coliseum basement as well, is crowded to the limit. There are twenty makers of cars and forty makers of accessories on the waiting list, some of whom may be taken care of at the last minute in the Seventh Regiment armory—the commercial vehicle section. The total floor area covered by the Chicago show is 168,650 square feet. General Manager Miles is now engaged in working on the color scheme with his staff of artists and he promises that it will exceed even the magnificence of last year.

#### Quakers Are Hustling

Philadelphia, Pa., Oct. 14.—Profiting by the experience of last year, when the crowds were so dense as to practically interfere with business, the management of the coming show of the Philadelphia Automobile Trade Association, which will again be held in the First Regiment armory, November 9-16, will set apart 1 or 2 nights during the week especially for those who desire to give the cars careful examination with a view to ultimate purchase. On those occasions the admission price will probably have to be doubled. Secretary J. Henry Beek has established headquarters in room 216 in the Odd Fellows' building.

#### Another Detroit Show

Detroit, Mich., Oct. 14.—Despite the fact the dealers will hold a rival show in Wolff's pavilion the Tri-State Automobile and Sporting Goods Association has obtained a sanction from the Motor and Accessories Manufacturers and will hold its seventh annual motor car show in the Detroit Light Guard armory the week of February 10 to 15, inclusive. Preparations are being made to show pleasure cars, commercial cars, accessories and motor cycles in the Light Guard armory.

## FRESH IDEAS ARE FEW

### Novelties Will Be Scarce in Paris —Tendency to Luxuriousness Is Accentuated

Paris, Oct. 5.—The Paris salon opens its doors 6 weeks from today, and already the iron framework of the industrial exhibition is in an advanced condition. This building extends over a great part of the Esplanade des Invalides and will be as large for actual stand space as the grand palace, where the pleasure cars are shown. It seems pretty certain, from present indications, that novelties will be fewer even than in 1906, at least as regards the pleasure cars. The tendency to luxuriousness observed among French coach builders will be accentuated. A comfortable car is obtained with a more pleasing exterior by the flexion of the frame in front of the rear wheels, or the arching of the frame over the rear wheels, whichever way it may be regarded, and more concerns are adopting this practice than before. The six-cylinder models will be more numerous than in 1906, but there will not be any great run on this model. Automatic starting devices will be popular and a good one will meet ready sales. In view of the ever-increasing price of gasoline the development of a carbureter which will use crude oils as well as denatured alcohol is receiving great attention and several concerns are studying the matter with the view of producing something attractive at the salon. In the competition for the best automatic starting device are already entered the makers of the Fiat, Mercedes and Mors.

Chain cases have received but little attention, and although the makers state their readiness to fit to order, yet few of them have chain cases in their catalogues. The increasing use of the cardan shaft for small and medium-sized cars has had much to do with this. A brochure will be published by the show organization, which will indicate the chief novelties to be seen in the salon this year. If the brochure is as incomplete as the official catalogue it will not be a very great aid to those seeking out the good things in the show. It is a step in the right direction, however. The motor boat is receiving increased attention as the pleasure car nears perfection, and some big improvements are said to have been made in engines for these speedy craft. As is usual at this time of the year, makers are not anxious to make known their 1908 novelties, but it is understood there is nothing startling to be shown by any one; indeed new ideas are admitted to be difficult to secure.

Among the novelties to be seen in the 1907 Paris show will be a car with four speeds, all direct drive, this being obtained by a peculiar application of the revolver barrel principle. There will also be more six-wheel chassis on view than last year and the two-cycle motors are also

receiving renewed attention by one or two makers. The salon poster has been issued and consists of the genius of the motor car, represented by a gracefully draped female figure showing to a crowd at her feet a background in which is seen the brilliantly illuminated grand palace. The trade in general is pinning all its hopes to the salon show, believing it will give a true line on the prospects for next season.

#### Olympia Show Plans

London, Oct. 1.—England's sixth international motor exhibition at Olympia, November 11 to 23, will be open 3 days longer than on former occasions and although the French have advanced the date of the Paris show, the British exhibition is still in advance of them. Cars will be shown by representative manufacturers from France, Germany, Belgium, Italy, Switzerland, United States of America and Great Britain, so practically every type of pleasure car will be exhibited. In order to provide room for these numerous exhibits it has again been found necessary to exclude commercial motor vehicles and motor boats and a separate exhibition will be held for them at Olympia in March, 1908. The November exhibition will be divided into sections. On the ground floor will be shown motor cars ranging in price from \$2,500 to luxurious touring vehicles at over \$5,000. The gallery will contain the motor component parts, accessories and tires sections. Olympia has been re-decorated inside and out and from a spectacular point of view it probably will be more attractive than last year. In previous years the motor show always has held the record for the number of incandescent lights used for decorative purposes by exhibitors. At Olympia last year the lights reached a total of 40,000; this year additional cable has been laid to meet the increased demand for current and the building will be ablaze with lights.

#### Hartford Will Have a Show

Hartford, Conn., Oct. 14.—Hartford is to have a show of its own from January 14 to 18, at the Foot Guard armory. The affair will be promoted by the Automobile Dealers' Association of Hartford, and Ned Biddle, F. W. Dart and S. A. Miner are the moving spirits of the enterprise. One day of the show will be devoted to society, and on this occasion the admission will be doubled. All the necessary arrangements have been completed and all the space has been sold.

#### Dates for Parts Show

Chicago, Oct. 15.—Dates for A. M. Andrews' accessories show have been set for the week of November 30 to December 7. It will be held in Brooke's Casino. While there will not be a single machine of any make complete at the show, there will be a car made up of all the different parts exhibited at the various booths, and this will be a peculiar and interesting composite machine in which will be put parts from all sections of the world.

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## MOTOR AGE

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### IS THIS THE REASON?



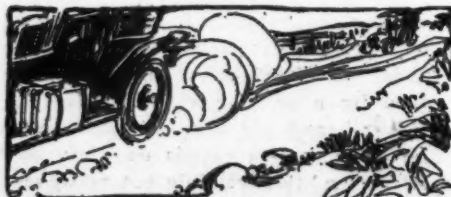
ROAD racing interests in this country seemed to have suffered because of the attitude of the American Automobile Association; even abroad the controlling body has been taken to task for the part it has taken. The history of the failure to promote the Vanderbilt cup race this year is well known—too well known to some makers who had been led to believe the event would become a fact and accordingly made preparations for it at big expense. Should one dig deep enough into the facts he would ascertain that there is close relationship between the American Automobile Association and the Long Island Motor Parkway company and that what is to the advantage of one of these interests naturally is advantageous to the interests of the other. It naturally hurts to have it told from abroad, as it has been, that "the truth has come out that the Vanderbilt cup race was abandoned for this year, not because a course patrolled by troops could not be secured, but because the interests of the Long Island motor parkway could be better served by a postponement until the spring. It appears that the controlling spirits of the executive committee of the racing board of the A. A. A. are financially interested in the parkway, and thought it to their advantage to make the Vanderbilt cup the inaugural of the Long Island motor way. This specially-built straight-away will probably be completed early in 1908, and, although no announcement has yet been made, it is generally understood that May or June will be the Vanderbilt race month." There are two ways of looking at the situation. It must be remembered that those interested in the parkway pledged themselves to provide a safe and modern place upon which motor car racing could be held. They may and they may not realize anything on the investment, with the chances against them. On the other hand they may have believed that even as a real estate investment the scheme would prove a good thing. They probably realized that their only reward lay in this direction, for certainly no business man could hope to receive return on the investment from the racing side of the venture. It must be admitted that today the situation is more doubtful than ever, since the serious aspect of trade affairs abroad. The leading spirits of the American Automobile Association, who are the promoters of the parkway, are deserving of at least one criticism, in that they made no effort to promote the Vanderbilt cup race for 1907 either in New Jersey,

Missouri or California, all of which places had guaranteed to supply a suitable course for the race. It will not be disputed that not only was no effort made to hold the race in any of the states named but that the race was peremptorily abandoned even while the other interests were pleading for an opportunity to promote it or at least to supply the road upon which it might be held. If the members of the American Automobile Association and its racing board abandoned the race because of possible injury to their interests in the parkway they deserve censure; but the promoters of the parkway, although they are members of the American Automobile Association and its leading lights, are to be congratulated upon putting through so successful a deal as to thoroughly protect their pocketbooks.

### CONGRATULATIONS ARE DUE



MEMBERS of the Chicago Automobile Club may well be congratulated upon the outcome of their fall meet—not upon the size of the crowd, nor the quality of the racing, but upon the fact that they came out without adding to the track tragedies that have already been placed before the public. Providence was kind in the case of the Chicago club, for it was by a mere scratch that at least one was not killed. There was a case of near-death—so near that those who witnessed it cannot now realize how a fatality was averted. It clearly illustrated all that Motor Age has said against racing on mile horse tracks with cars of immense power. As it was, the picture of a man being placed in a hospital ambulance served as the horrible example that is necessary to cause men to think. It is not at all likely the Chicago club, having saved its reputation, will again risk it by promoting another meet until such time as there shall be safer tracks for the present high-powered cars or until some means have been discovered to regulate racing down to the safe limit. There was no Mr. Bill Pickens at this meet; consequently no scandal and further congratulations. If the club lost reputation by having been mixed up with Mr. Bill Pickens, it probably regained it by having a decent meet promoted and officered by decent people.



### AN AMERICAN TRIUMPH



COULD any better illustration be given of the triumph of American cars over those of foreign make than the dropping in price of some of the foreign creations? The very fact that the prices of foreign cars have been dropped to correspond with the prices of American cars is sufficient to warrant the presumption that the American cars have reached the top notch, or that foreign cars are not worth all that has been asked for them, or that there is such a surplus of foreign cars that it has been necessary to find some place to unload them. The situation abroad is more than critical, according to late reports. It would be patriotic to take the stand that the American cars had reached a point of practical perfection; the truth is, however, that the foreign market is overstocked, that the manufacturing business there is in a precarious condition and that the cut in price is for the sole purpose of unloading at prices which will attract those who like to buy things that have foreign nameplates upon them. Italy is plastered with motor car factories; only a minute portion of its people can afford cars, so it must depend upon the outside world for a market. France is in a deplorable condition, according to cable reports, which state that several big houses have liquidated. English makers have barely come out even this year. Is it any wonder, then, that foreign makers should seek a market, when it is known there are hundreds of chassis awaiting shipment to some point whence good hard coin will be returned? It is not at all likely the bait will prove sufficiently tempting to even cause a flutter in American trading circles; but it will serve as something to cause American makers to study the trade situation so far as the world's markets are concerned and cause them to avoid slipping into the same mudhole as the foreigners now find themselves. It has been realized for a long time that something would happen in European trade circles, so that the condition abroad does not come as a complete surprise. Some of the news that will reach this country within the next few months will, however, cause more than mere astonishment and it will show why the makers on the other side have been so anxious to push sales in this country, why they have invaded these shores in race advertising campaigns and why they have so persistently pooh-poohed American-made motor cars and motor car accessories. In a short time some very startling truths may make their appearance.





APPARENTLY realizing the dangers of track racing as now conducted, and not wishing to be a party to such affairs, E. R. Thomas, the Buffalo manufacturer, has declared he will quit the racing game—if he can get on one match against two foreign cars. It is easy to see why Mr. Thomas should desire a little satisfaction before he quits—he wants to vindicate himself and his car—and were it not for this position he might be severely criticized for not quitting the moment he came to realize that it was his duty to cease being a party to the business. There is not much of a chance for Mr. Thomas to secure a date this year, but there will be ample opportunity another season to try conclusions with all comers and on safe tracks, too. If such opportunity does not present itself on safe tracks it will not present itself at all.

THIS week will see the running of the final heat in Chicago's annual economy test, for such the Knight trophy really is. In this contest will be the first ten cars to finish in the recent test promoted by the Chicago Motor Club. This test has been made a little more severe than the original one, inasmuch as the distance to be covered is twice that previously covered, so that a better conclusion can be arrived at in the matter of economical running than if a shorter course were used. In the first test there were so many unknown quantities that probably the best results were not obtained, but several weeks of experimenting from a known point of excellence ought to bring the fuel consumption down several points and show that it is not necessary to give the oil companies large orders simply because of a lack of little experimenting.

## FOREIGN MOTOR CAR SHOWS

**Olympia Show**—Sixth international motor exhibition, Olympia hall, London, England, November 11-23.

**Paris Salon**—Tenth annual Paris salon in Paris, France, November 12-December 1.

**Minor English Shows**—Annual Stanley show, London, England, November 22-30; Liverpool show, March 20-28; Cordingley show, March 21-28.

**German Shows**—Exhibition of touring cars in Berlin, Germany, December 5-15; exhibition of commercial vehicles, December 19-22.

**Brussels Salon**—Annual Belgian show, December 21-January 2.

**Irish Show**—Annual Irish show in Dublin, January 4-11.

**Italian Show**—Exhibition in Turin, Italy, January 18-February 2.

**Canadian Shows**—National motor car and sportsmen's exhibition in Toronto, March 21-28; third annual show in Montreal, April 4-11. R. M. Jaffray, 1 Wellington street, Toronto, manager.

## MOTOR AGE SHOW NUMBERS

A.C.A. Show Oct. 31

A.L.A.M. Show Nov. 7

Chicago Show Dec. 5

MAKERS of cars who expect to do business in the immediate vicinity of Chicago will have something strenuous in the demonstrating line to go through immediately before the opening of the Chicago show in place of the usual show demonstration consisting of a whirl up and down a boulevard for a few moments. Traveling out into the country 200 miles a day for 3 consecutive days, under a most rigid penalty scheme, will test any car to the utmost and will be the means of showing the public what stock cars will stand under severe trials. A study of the rules on another page ought to convince the prospective buyer that any car that can finish the trial with anywhere near a clean score is a safe car to buy. Those who have studied the rules declare this will be the most rigid test that has ever been conducted; as a matter of fact, tests heretofore have been much too lenient.

TOM MOORE—whoever he is—does not propose to wait for the American Automobile Association to promote a road race for stock cars. He is going ahead with the affair himself and has set the date for April, 1908, so as to give makers every opportunity to be ready for the event. Tom ought to have the support of each American maker with the speed bee buzzing around his head if only to show that such an event can be successfully conducted. Motor Age is with you, Tom.

WRANGLING on the part of Edge and Darracq over a race for stakes of \$50,000 a side will amount to no more than some of the breaths of warm wind that have been felt in this country. It has become popular—and wise, from an advertising point of view—to talk big race and big stakes, for it is cheap advertising and besides it undoubtedly gives some pleasure to the talkers in the controversy.

LITTLE wonder the importers desire a continuance of track racing, for if reports of large stocks of chassis on hand abroad are true there needs to be some form of cheap advertising to help dispose of these foreign-made goods to Americans, who, by the way, have come to the conclusion that motor cars made in this country are good enough for almost anybody. If the importers desire a continuance of track racing, let them suggest something that will insure safe and sane sport; if they desire to show how good the foreign cars are, let them pit them against American-made cars in the many road tests that are held in this country each year. The fact that a car has speed is by no means an indication that it is what is wanted for the average purchaser and there are more ways than this of convincing the users of the stability and reliability of the motor car of the present and they should be tried.

LEADERS of the American Automobile Association are reported to be contemplating plans for a Florida meet, which is a step in the right direction, seemingly indicating that President Hotchkiss and his colleagues have read the handwriting on the wall and believe that the agitation against racing on 1-mile circular tracks will prove successful. In the absence of tracks the size of Brooklands it would seem that the straightaway sandy stretches around Ormond would furnish a first-class substitute and the sooner the A. A. A. people go in for this sane sort of competition the better it will be for the game. A well-conducted and well-supported beach meet in Florida would go far toward rehabilitating the A. A. A. in the estimation of the motorists. Even the Vanderbilt road race fiasco might be excused.

## AMERICAN MOTOR CAR SHOWS

**A. C. A. Show**—Automobile Club of America's annual show at Grand Central palace, New York, week of October 24-31.

**New York Show**—A. L. A. M. show, Madison Square garden, November 2-9.

**Philadelphia Show**—Annual show of Philadelphia Automobile Trade Association, week of November 9-16. J. H. Beck, secretary.

**Chicago Shows**—Eighth annual Chicago show, Coliseum, and first commercial vehicle show at Seventh Regiment armory, both November 30 to December 7. S. A. Miles, manager, New Southern hotel, Chicago.

**Accessories Show**—A. M. Andrews' accessories show in Brooke's Casino, Chicago, November 30-December 7.

**Detroit Show**—Detroit Automobile Dealers' Association's show at Wolff's park, Detroit, week of December 9-16.

**Importers' Show**—Importers' Automobile Salon exhibit of pleasure and commercial vehicles in Madison Square garden, New York, December 28-January 4.

## BEST WORK BY ROUGIER

### De Dietrich Driver Makes Fastest in Mount Pilat Climb—Results in Other Hill Meets

Paris, Oct. 3.—Hill-climbs now are interesting the French and the Mount Ventoux test has been followed by two other good competitions—the Chateau Thierry climb and the Mount Pilat ascent. The latter grade lies between Saint Etienne and Annonay and is some hill. It is 5 miles in length and with a gradient of 1 in 12. This is not as steep as Ventoux, but still it takes power to get up, so the feat of Rougier in a de Dietrich in going up the grade in 6 minutes 20 seconds, a pace of 45 miles an hour, was considered something out of the ordinary. Rougier, it will be remembered, was the star of the Ventoux climb, going up the 13 miles at 40 miles an hour. Both touring and racing cars competed at Pilat, the former being divided into nine classes and the latter into four. All of these did not fill, however, so it was necessary to abandon some of them.

Guippone in a little Peugeot, won the first class for one-cylinder cars in 12 minutes 16 seconds, Sizaire & Naudin cars running second and third. Desgeorges in a Motobloc won the two-cylinder class in 20 minutes 7 seconds. Roy in a Roy won the event for four-cylinder machines, his time being 15 minutes 25 seconds. Jeanne Herveux, the woman driver, competed in class 4 in a Werner, which, however, went to Stokes in a Brasier in 13 minutes 18 seconds. Not until the fifth class was reached was the time made by the single-cylinder Peugeot beaten. Then Aubert in a Cottin-Desgouttes cut the 12 minutes 16 seconds to 11 minutes 40 seconds. From this point on, however, there was an improvement in the times, a de Dion, driven by Masse, going up in 9 minutes 59 seconds. In the seventh class another Cottin-Desgouttes distinguished itself by doing 8 minutes 47 seconds. A six-cylinder Brasier, driven by Lebrun, had a walkover in class 9, but it failed to cut the previous mark, its time being 9 minutes 13 seconds.

Following the attempt of the six the racing cars had their inning. The first one to make the climb was a small La Buire, driven by Lacharnay, which did 8 minutes 27 seconds. The Darracq starred in the second class for this type, while in the third section Mottard in a La Buire had no opposition. Then came the star class and in this Rougier made his sensational climb, with a Mors second with 8 minutes 51 seconds.

Mud and rain made the roads slippery for the Chateau Thierry climb, but this did not prevent the affair taking place. Racing cars were played up to and there were classes for the criterium cars, the kaiserpreis racers, the Targa Florio machines, the sporting commission cars, for

cars weighing more than 400 kilos and another class in which there were no limitations. With this galaxy of talent it might have been expected sensational time would have been made, even over bad roads, but the 1905 record of 38½ seconds made in a six-cylinder Napier by Clifford Earp was not touched, the best performance being 1 minute 12 seconds by Sespers in the Pipe kaiserpreis car. The criterium event went to a Martin-Lethimonnier in 2 minutes 3 seconds; the Targa Florio to a Darracq in 1 minutes 30½ seconds; the commission to a Darracq in 1 minutes 28 seconds; the 400-kilo class to a Vulpes in 1 minutes 21½ seconds and the no-limitation class to a Darracq in 1 minutes 14½ seconds. There also were events for touring cars.

In the Semmering hill-climb in Austria Poege, driving his kaiserpreis Mercedes, cut the record to 7 minutes 29 seconds for the 6¼ miles. He defeated Gabriel in a de Dietrich and Cagno in an Itala. This was in the free formula class. Other winners in other classes were a Puch, Laurin-Klement, Benz, Metallurgique, Opel and Benz. Poege also won the racing class under the kaiserpreis formula, beating Hemery in a Benz. The entry list for this classic was not as large as usual, but it drew even a larger crowd than last year when the Mercedes starred.

## EXPORTS AND IMPORTS

Washington, D. C., Oct. 14.—The bureau of statistics has compiled figures showing that during August last 256 motor cars, valued at \$437,468, were exported from the United States, as against 228 cars, valued at \$421,220, exported during August a year ago. The value of the parts exported in August was \$69,054, while in August, 1906, the value was \$45,911. The number of cars exported during the 8 months ending August, 1907, was 2,308, valued at \$4,263,437, while the value of the parts exported during this period was \$488,575. Figures are not available showing the number of cars exported during the corresponding period of 1906, as the bureau has only lately begun to give the number of cars exported. However, as showing the enormous increase that has taken place in the export trade in motor cars, it is interesting to note that the combined exports of cars and parts during the first 8 months of 1906 was only \$2,356,110. Thus it will be seen that the exports of cars alone during the first 8 months of this year were nearly \$2,000,000 greater than the combined exports of cars and parts during the corresponding period of 1906. Cars and parts were shipped to the following countries in August last: United Kingdom, \$120,300; France, \$45,385; Germany, \$8,093; Italy, \$436; other European countries, \$18,011; British North America, \$135,905; Mexico, \$34,488; West Indies and Bermuda, \$54,372; South America, \$25,050; British East Indies, \$7,239; British Australasia, \$40,637; other Asia and Oceania, \$3,656; Africa, \$25; other countries, \$1,925.

## STIRRED BY EDGE DEFIN

### Darracq Team May Meet One of the Napier Sixes—Stakes of \$50,000 Are Proposed

London, Oct. 5.—The sensational challenge on the part of S. F. Edge to race a team of six six-cylinder Napiers against any similar team of any one make of car for \$5,000 has been undergoing a variety of evolutions and has now reached a condition so abnormal that it is likely to fizzle out. The stakes have been boosted up to \$50,000, but until they are put up nobody here will believe that the contest will take place. At first it was suggested that D. M. Weigel was willing to put in a team of Weigels, but that proved a false alarm. He would have taken up a challenge for three, but a half dozen special chassis is not to be thought of in these dull days. Then Huntley Walker, who has been running the Darracq agency in London and had the exclusive concession for six-cylinder models, offered to accept the gage of battle if certain modifications were made. He wanted the team reduced to three cars, one short event to be run on Brooklands track and another of say 500 miles on the road, the stakes to be divided if each side won one event. Edge agreed to the three-car team proposition, but wanted three races, for, as he pointed out, the two-race test might be inconclusive and as he was in earnest three events might have to be run and at the earliest possible moment. Then Huntley Walker pressed for conditions similar to the 1907 grand prix and announced that his team would be four-cylinder Darracqs. Edge suggested 1908 grand prix rules but did not press for them and finally announced that if Walker posted his money the contest would take place on Brooklands on his own conditions. That is the situation now and the suggestion is that it is where it will remain over the Olympia show.

There is a meeting on Brooklands track next Saturday and there is just a bare possibility of one of the contests taking place as it is known that Huntley Walker depends on the 200-horsepower Darracq for the speed test and the cars he ran in the Brescia circuit for the longer contests. The double-century model has, it is said, been bought by a Canadian named Ross, of Streetville, Ontario, for, it is alleged, \$10,000, after it had achieved a speed equal to 115 miles per hour on Brooklands track. As Edge must know that that is something beyond the 80-horsepower Napier's capacity the whole affair looks a trifle hazy.

In truth so does the sale of the big Darracq, for Mr. Ross disappeared from London subsequently and was discovered, after a hue and cry of 2 days, at Dover incognito. Anyhow, the car at present is still at Darracq's place in London.



Of course this proposed race has been well threshed out in the columns of the press. The last shot was fired by Walker, who wound up: "If Mr. Edge agrees to my conditions, I am quite willing for the race to take place any time during October, and that the stakes be immediately deposited with Lord Lonsdale, the president of the Brooklands Club, and all questions of details left absolutely to the discretion of, say, Lord Lonsdale and Colonel Holden, two of the stewards of the club. In regard to the time-keeping for the short distance speed race I would suggest that we have the official timekeepers of the French and English automobile clubs. To conclude, should Mr. Edge consider he is placed at the smallest disadvantage by the conditions stated by me, I am willing that he should pick out his fastest cars and I will do the same, and we will waive all question of rules or conditions whatsoever and let the race be unconditional, the fastest car to be the winner irrespective of either gasoline consumption, weight or engine capacity. I do not know that Mr. Edge can possibly wish anything fairer than this."

#### TOLEDO IS OPTIMISTIC

Toledo, O., Oct. 12—A prosperous season for next year already is predicted. New garages and buildings of different kinds, rearrangement of old structures and like investments are demanding the attention of the dealers during this their slack season. Noticeable among the changes being made is the new brick garage now being erected for the Lichtie Automobile Co. on Madison avenue. This structure will be 50 by 125 feet, and will contain more than 6,500 feet of floor space. The walls are of brick, the floors of cement and the structure fireproof throughout. The work is being rushed to completion as rapidly as possible. It is expected that the removal will be made from the present quarters on Jefferson street to the new building about December 1. Another extensive improvement is the rearrangement of the garage of the Kirk Brothers' Automobile Co., on Jefferson street.

#### BUICK WINS CENTURY GRIND

Aurora, Ill., Oct. 12—The fact that the local meet today clashed with the one held in Chicago apparently did not detract from the attendance here. The feature race was a 100-mile event, in which four cars started and only one finished. The winner turned up in a two-cylinder Buick, driven by E. L. Weiant, connected with the Chicago branch, who covered the century in 2 hours 40 minutes  $\frac{1}{4}$  seconds, an average of 1 minute 29 seconds to the mile. The Buick's consistency was shown by the fact that its fastest mile was 1 minute 28 seconds and its slowest 1 minute 36 seconds. A Ford six, driven by Frank Wood, of Elgin, completed 92 $\frac{1}{2}$  miles, leading at 83 miles, but being forced to stop for adjustments.

## HAS HAD DULL SEASON

### England Complains of Poor Business in 1907—No Serious Trouble Is Apprehended

London, Oct. 5—The trade position here is very dull and while there is no serious trouble to be apprehended, 1907 must be ranked as a disappointment. It is stated that concerns like Daimler, Humber and Wolseley have large stocks of motor cars, many being portions of agents' contracts that have not been taken and cannot be. Most other makers are also in the same condition, but beyond reducing profits to the vanishing point this will not do much harm to the manufacturer who as a rule has held a tight grip on his goods where the cash was not forthcoming. Some of the foreign concessionaires have been badly bumped by inflated contract stocks and the second-hand auction sale rooms have been busy selling this surplus stock at heavy loss. Even the tire concerns are loaded. One of the French importing concerns is disposing of its stock at 50 per cent summer prices and it is said that another one has more than \$5,000,000 worth of tires in stock intended for the 1907 market. The business has been overestimated, but is not likely to suffer otherwise than in the inevitable cut in prices which follows trade stagnation of this kind. Napier prices have come down very heavily for next year.

The British war office recently instituted a scheme for training time-expired soldiers in motor driving. Portsmouth has been selected as the training center, the headquarters being at Clarence barracks. Service motor classes at Portsmouth are, of course, no new thing, it being now 3 years or more since the institution of the first of such classes for men of the Royal Marine Artillery, and this institution, in addition to marines, has trained various soldiers as chauffeurs. His majesty's ship *Excellent* followed, and a little later a class was started at Portsmouth naval barracks. Special interest attaches to this class because it was mainly instituted for stokers, who were outside the general scheme of other classes. These two naval classes are now being incorporated in one class under the aegis of the naval employment agency. With regard to the army class, the government about 6 weeks ago made a grant of \$500 in aid, and the bulk of this was expended in the purchase of a second-hand 12-16-horsepower car—a type of vehicle eminently suited to the work. The first class formed consists of about twenty-five men, with a quartermaster sergeant, who has previously passed through a class, as instructor. The course extends over 10 weeks, the men paying about \$15 each towards the expenses of it. During the course they receive lectures on the theory, etc., of the gasoline engine and continual driving lessons, first of all on a motor

lorry. When they have learned in the matter of gentle handling of the clutch, speed lever and brakes sufficient to satisfy an examiner, they are to pass to the car, on which they will make extended tours into the country. During the training various local motorists who are assisting the idea will run their cars down to the barracks and give chats about them. Owing to this coöperation the men will get a fair knowledge of all types of cars. At the end of the training they undergo an examination for regimental certificates as to their ability as drivers, and all also enter for the Royal Automobile Club driving certificate examination, which is, of course, stiffer by far than the mere proficiency examination. It is, of course, expected that in war time these men will be available for service transport in the field in case they are needed.

#### HOOSIERS' 1908 LINEUP

Indianapolis, Ind., Oct. 14—There promises to be an unusually large amount of changing in agencies at the beginning of next season in this city and a number of cars not heretofore handled in Indiana will be represented here in 1908. This season there were probably fewer changes than in several years previous. Every agency in the city seems to have had a satisfactory season and 1906 sales records have been broken. It is difficult to estimate the number of cars sold in 1907 here, but it will undoubtedly reach 1,200, the majority of which, of course, have gone outside of Indianapolis. Although all contracts have not yet been closed for 1908, the line up of Indiana agencies will be about as follows: Fisher Automobile Co., 330 North Illinois street, National, Maxwell, Mitchell and Stoddard-Dayton, the same line carried in 1907; Indiana Automobile Co., 220-224 East New York street, Winton, Franklin, Peerless, Pope-Hartford, Thomas and Autocar; Boyd Automobile Co., 417 Massachusetts avenue, Stevens-Duryea and Buick, dropping a buckboard carried this year; Gibson Automobile Co., 238 Massachusetts avenue, Premier and Ford, dropping the Marmon; Capital Automobile Co., which has carried the Overland, Wayne, Jackson and Reo, unsettled, but has contracted for the Olds; Hill & Beeson, 23 East Ohio street, St. Louis, Leader, Auburn, Richmond and Eldridge, the last two being new agencies; H. T. Hearsey Vehicle Co., 113-117 West Market street, White, Pope-Waverley, Rambler, Marion and Marmon, the last two being new agencies, and dropping the Jewel; Indianapolis Motor Car Co., 119 Kentucky avenue, Dragon and Rapid trucks; Indianapolis Automobile Co., 115 West Maryland street, not settled; D. B. Sullivan, Capitol avenue and Court street, Lambert; Frank A. Beck, 719 North Illinois street, Pope-Toledo; Cadillac Motor Car Co., 330 East Market street, Cadillac; Morton Place Livery and Garage Co., North New Jersey street, Moline.



# THE READERS' CLEARING HOUSE



## LOUGHEED ANSWERS OSBORN

San Francisco, Cal.—Editor Motor Age—  
I see from the issue of Motor Age of September 12 that Mr. Osborn still finds some fault with my opinion on the subject of change of speed gears, so I am again attempting to define myself more clearly, believing, as Mr. Osborn seems to, that such discussion is sure in the end to be productive of good. To begin with, I must again insist that I have nowhere committed myself to a belief in the immediate extinction of the change-speed gear, though in time I think it will disappear, because of reasons I have already given at some length. I certainly expect to see the reversing element of it done away with as engines are improved. Mr. Osborn appears not to share this hope, possibly because of the interest he implies in his first letter, in "a patented form" of planetary gear, which he asserts is arranged to give the reverse in some extraordinarily simple manner. Without disputing the merits of Mr. Osborn's planetary gear, which may be very good, and which I and many other Motor Age readers would like to see described, I cannot believe that its reversing function is better than dependence upon a well-designed positively reversing engine. Mr. Osborn states that he secures the reverse "without the addition of a single part," and from this launches into a considerable argument, premised upon the theory that the most extreme simplicity is the highest possible merit in engineering construction. To a great extent this idea is true, but its pursuit, regardless of all other considerations, might lead to such results as that described by a recent newspaper writer, who gave some space to a motor that had "cylinder and piston cast in one piece." Mr. Osborn's arguments, moreover, become rather weak when he asserts the reason for not fitting geared reverses to steam and electric motor cars. For example, he states that the "steam engine is already provided with a cutoff mechanism capable of giving the reverse." If he will investigate this subject more thoroughly he will find that in the case of most steam motor cars nothing of the sort is the case, the so-called "cutoff mechanism" being specifically a mechanism provided for reversing—apparently in preference to the provision of reversing gears—the variable cutoff function not being practically used on the small steam engine employed in steam motor cars, nearly all which work with fixed cutoff. The statement that "the electric motor can be run in either direction with particular ease" is true, but hardly constitutes refutation of any argument of mine. The truth, even, is due to the fact that it is specially constructed and provided with elements that

specifically adapt it to "run in either direction with particular ease." And all I am proposing is internal-combustion motors "adapted to run in either direction with particular ease." Were extreme simplicity the only consideration, suppose my new engine, illustrated in the issue of August 22, were built with an overhead camshaft, the end of which projected through the toeboard of the car. Then conceive the reverse pedal so attached as to produce directly a slight endwise movement of the camshaft, or its partial rotation, and I think the reverse would be about as simple as could be made, for even the reverse function in Mr. Osborn's planetary gear must be linked up in some way to some controlling mechanism. The argument that "a reversing engine, to be positive, means a multiple-cylinder engine" impresses me as stronger than some of the others. But at least the number of cylinders requisite to positive reversing is essential to even torque, reduction of load on the transmission, and good balance, so it is not probable that any serious difficulty lurks within this consideration. The talk about "the predictions regarding the Edison battery, etc., having had an unjustly prejudicial effect against existing systems" is, in the opinion of the writer, all balderdash. In a considerable editorial and trade experience I have yet to learn of a single authenticated case of any one who refrained from buying a car because of Edison batteries and the like. And, were there anything in this sort of theory, certainly nothing could be better calculated to foster the evil than such talk as Mr. Osborn's about "a better type of vehicle will finally be evolved," and about "the majority of cars in the future costing less than \$500," both of which statements are unquestionably true. But all of us possessed of common sense know perfectly well that the motor car is going to be improved in the future, just as it has been improved in the past, and we will build and sell and use the cars we have while waiting for the better ones. Mr. Osborn's remarks concerning my instancing the Ford car are almost as unfair as they are fallacious, for I pointed out that removal of the high gear from the car would reduce its speed only 50 per cent, not "or more," while any additions then to engine flexibility would reduce the 50 per cent, and permit the raising of the gear ratio. I have, however, thrashed this point out too thoroughly in recent articles to care to repeat it here. As for the motor cycle, it is to be conceded that the more expensive two-speed machine is making some gains in popularity, but it remains a fact that even abroad most of the motor cycles still sold and used are single-speed. Concerning the

Stanley and the Serpollet cars, Mr. Osborn gets after me very vigorously about "the latter," but forgets to say anything about the former, which is said to hold a few small speed records, and which can climb any hill that has been discovered. Even the Serpollet, though it has not been used on American roads in any numbers, has been used to a considerable "extent," and will do business over the hardest going. It is true "that there are times when users of this and other single-gear steam machines, including the single-gear White, wish they had another speed," but there also are times when users of under-powered, small-wheeled gasoline cars, with four speeds, wish they had block and tackle, so what of it? And, finally, what argument can be advanced against gearlessness and in favor of gears that will not with equal force apply against two-speed gears and in favor of five? In conclusion, I wish to thank Mr. Osborn for his favorable opinion of the Lougheed cycle of engine operation, and to express the wish that I may learn more of his planetary gear. I also wish to thank Mr. Oliver Light for his favorable opinion, as published in the issue of September 12. I am not planning to come east in the near future, but I shall be pleased to learn by mail whatever it was that impelled Mr. Light to ask for my address, which is as was given in your answer to his letter.—Victor Lougheed.

## CLEANING RADIATORS

Indianapolis, Ind.—Editor Motor Age—I will take it as quite a favor if you will advise me through the columns of the Readers' Clearing House a formula for the best solution to clean out radiators. I believe you published this some months back, but in looking over my copies of your publication fail to find the particular issue. If you cannot devote space in a near issue, I will take it as quite a favor if you will advise me by return mail. I would like to know what chemical to use and about how much per gallon of water. My engine seems to have a tendency to overheat and I have about concluded the water area of the cylinder and perhaps the radiators have limed up.—D. C. J.

Dissolve as much concentrated lye as a quart of water will hold, drain a little water out of the radiator, pour in the lye water and start the motor to cause circulation. Do not have the water level so high that it can boil over. The lye water will destroy paint if it touches it. Keep this in 10 minutes, drain off, put in fresh water half a dozen times—running the motor each time. This will work in a tube radiator. What kind has D. C. J.? The water ought to be drained daily for 3 days in order to remove traces of the lye.



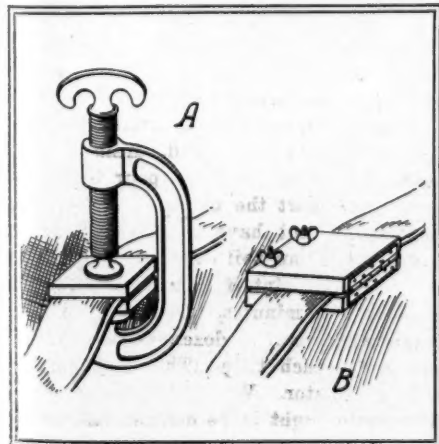


# MOTOR CAR SHOP KINKS



## PATCHING INNER TUBES

The patching of punctured inner tubes is one of the many points involved in motor car operation and maintenance about which much is written and little understood. The average motorist, it probably can be asserted without fear of contradiction, has punctured tubes vulcanized, being driven to this rather expensive policy by a few sorry experiences with roadside repairs during his earlier acquaintance with the new conveyance. And certainly nothing could be more discouraging, on top of the lamentable enough fact of a puncture, than to have its laboriously accomplished repair give out in the first few feet of traveling. Nevertheless, it is a fact that a cemented patch can be made to hold almost as well as a vulcanized job, if a few essential things be observed in making it. In the first place, though most instructions mention the necessity for roughing with emery cloth or by other means the surface to be joined, few of them emphasize the importance of in no wise slighting this preparatory work. But it is absolutely essential to any degree of success whatever that both surfaces be completely and thoroughly abraded, until the rubber is all roughed up by innumerable minute cuts and tears on its surface. Very coarse emery cloth, not finer than No. 3, is most suitable for the work, but finer can be used at the expense of more labor, and a coarse flat file surface is not at all bad in a pinch. Both before and after abrading the surfaces should be thoroughly washed with a piece of waste wet with gasoline, it being particularly important to remove every trace of chalk, or talc. When the surfaces are prepared, the cement must be applied to both of them quickly and evenly, and in quantity just great enough to insure its thorough penetration of every portion of the roughened surface. Smearing it on very quickly and with some pressure by the finger tips beats any other method that has yet been



PATCHING INNER TUBES

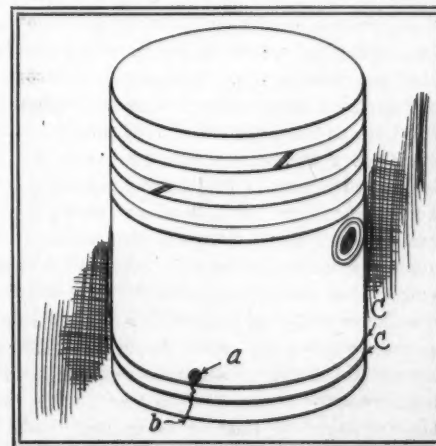
devised. A very important point is to have the treated surface on the tube larger in every direction than the size of the patch, because a loosened edge means the rapid working in of the tale from the tire, with the early ending of the patch's usefulness. After the cement is applied the surfaces must not be placed in contact until apparently nearly dry—just barely tacky. Another important point is to use patches with thick centers but thin edges. If the patches at hand are not so made, or pieces of an old tube must be used, a sharp knife will slice off the surplus thickness at the edges, if both blade and rubber are wet with water. The patches must be large enough to allow  $\frac{1}{2}$  to 1 inch all around the hole, according to size. Then they must be pressed and held together with considerable force—much more than the average individual is able to apply with his hands—until they firmly adhere. Overnight is not too long, and any attempt to run on the tube in less than half an hour is courting trouble. The common sense policy is always to carry at least one reserve tube, and thus give patches a chance to dry before placing them in service. A simple clamp of some sort is the only practical means of holding patch and tube together. The ordinary cabinet-maker's wood clamp, shown at A herewith, can be secured at almost any hardware store and used with the two thick blocks of hardwood, bb, serves very well. A special clamp made from a hinge, two pieces of wood and a couple of bolts with wing nuts, as shown at B, is better. If nothing else is at hand, a vise is very good, wood blocks being used to protect the tube from laceration. If the surfaces between which it is clamped are such as to afford this protection, there need be no fear of tightening up on the tube too hard.

## INVERTING BOLTS

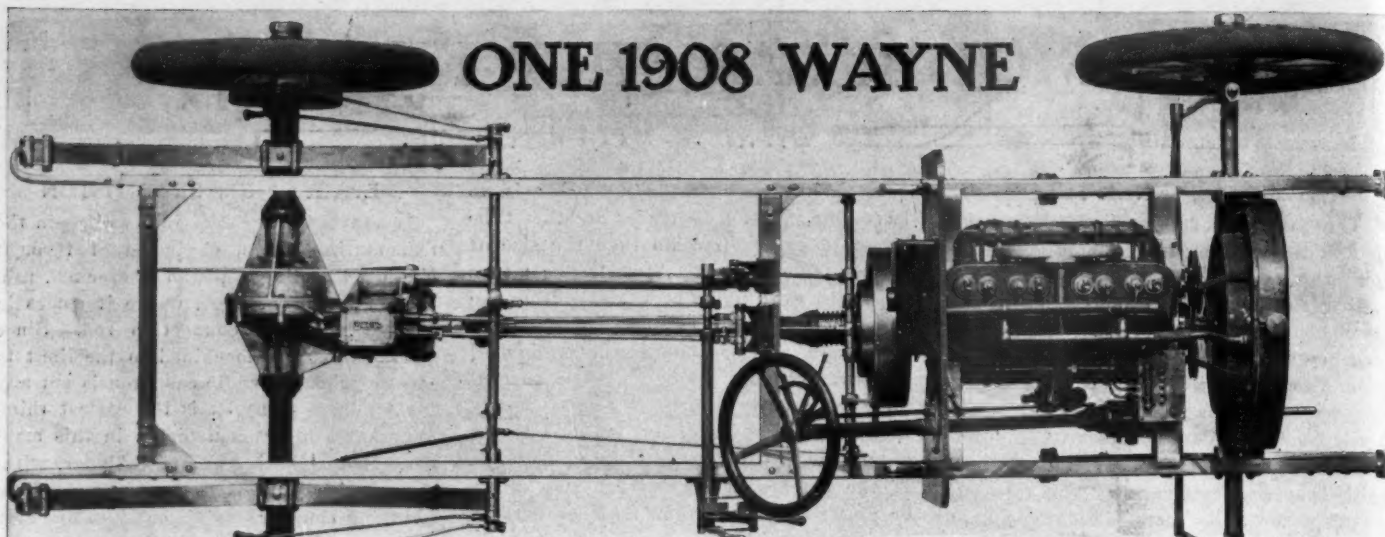
A trick worth remembering, in overhauling a car is that there is always likely to be a greater or lesser number of bolts that can be rendered more accessible—at least in the user's opinion—by simply inverting them, though to do so may possibly impair in some slight degree the workmanlike appearance admired by the designer or manufacturer responsible for it. Of course, care must be taken not to invert any bolts that have a better reason than appearance for being the other side up, and it is to be remembered that a bolt dropping out is apt to be materially worse than a nut dropping off. But, with cotter-pinned nuts, for instance, there is little sense in working the wrench in frame channels, etc., when the head of the bolt might better be there.

## REPAIR OF CRACKED PISTON

It happens every once in a while—in the dismantling of an engine—that through careless handling a piston is cracked, usually in the lower edge, where it comes in contact with the connection rod. Since most pistons are machined to the limit to secure lightness, while cast iron is not any too strong anyway, it is the easiest thing imaginable to crack a piston in this manner. Simply lifting off the cylinder, without watching the piston to keep it from swinging more or less violently to one side as soon as it is freed, is all that is necessary to cause the trouble. When this occurs the crack must be repaired, and an ingenious repair of such an injury is shown in the accompanying sketch, in which a is a copper rivet lightly headed into a countersunk hole drilled at the end of the crack b. Were this hole not drilled the crack might tend to run, just as in a pane of glass. The necessity for plugging it with the copper after it is drilled, is to prevent the leakage of gas through it and into the interior of the piston. Of course, the rings constitute the normal preventive of this, but the oil grooves cc are a further safeguard, which would be nullified by the presence of the hole. After the copper is securely in place it must be very carefully dressed off outside, so as not to bear against the cylinder wall. The inner end of the rivet can be left without finishing. In boring the hole care must be taken to have it cut out the end of the crack, since if the crack extends beyond it it will be valueless. If the end of the crack is too fine to be positively located, the hole must be made large enough to cover any possible error. Usually the crack can be very accurately located to its very end by filling it with oil, carefully cleaning off all the oil that appears on the surface of the piston, and then warming the metal. This will cause the liquid to exude in a fine but perfectly visible line along the entire length of the crack.



REPAIRING CRACKED PISTON



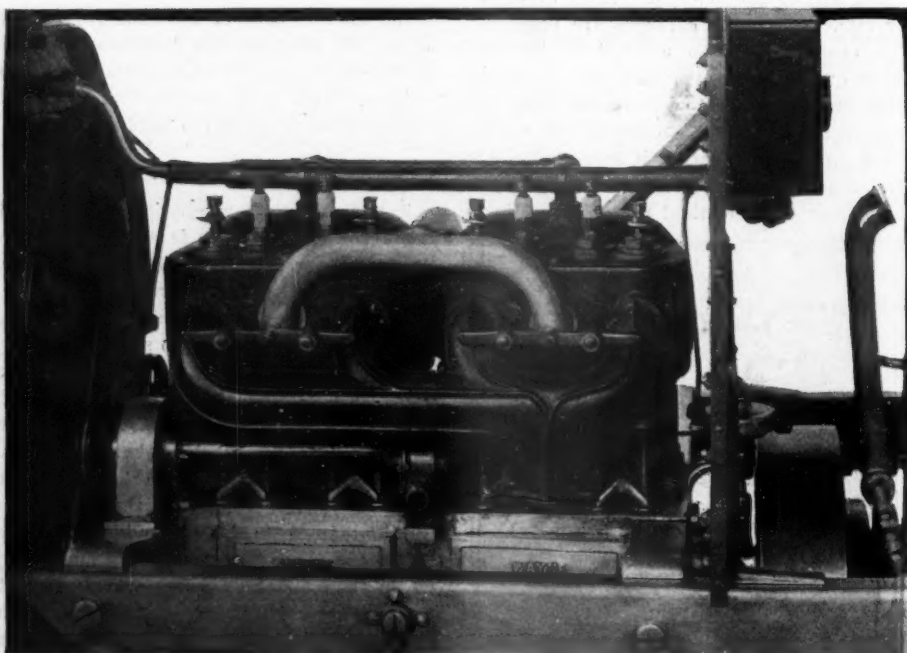
WAYNE 30 CHASSIS WITH EXPANDING CLUTCH AND REAR AXLE SELECTIVE GEARSET

ONE Wayne for 1908." In brief this, couple with "much the same as in 1907," gives the next year's program of the Wayne Automobile Co. Following present-time nomenclature it has been designated Wayne 30 and is a four-cylinder car featured by locating the selective gearset in a forward extension of the differential case on the rear axle. In this respect the car is a continuation of the 1907 machine, which was the first of its make to have the gearset so positioned. The car will be sold with either roadster or touring car bodies, both of which are illustrated on another page. A few details appear in the Wayne 30 in which it differs from the conventional car. Besides the use of a rear axle transmission, some of the details are on the surface; others must be sought within the aluminum castings which serve to house many of the more important car parts. First in this category comes the expanding clutch, which is a cylindrical drum cast integrally on the rear face of the flywheel. Within is a leather-faced expanding band, the expansion of which is provoked directly by a coiled spring and further by the rotation of the flywheel, in that the anchored end of the expanding band meets the flywheel first and the free or expanding end last. By this construction an easy engagement is achieved, as demonstrated during the present season on Wayne cars. On Packard cars, which have used expanding clutches for years, this same principle of flywheel assistance has been adopted for the approaching season. The engaging spring has but a 20-pound pull and is released with very slight pedal pressure by a sliding-wedge mechanism. The throttle and spark control levers are not mounted over the steering wheel, but beneath it and to the left. One lever is mounted on a solid rocker, which parallels the steering column on the left, and the other is on a concentric rocker sleeve surrounding the solid rocker. The handles are retained by two notched segments, one above the other, suitable pawls engaging them. Still

further out of the ordinary is the use of valves having nickel steel heads and machine steel seams, with the head and stem held together by an electric weld. The valve diameter is  $1\frac{3}{4}$  inches. Yet another uncommon thing is locating the carburetor on the right side of the motor, whereas the intake valves are in the floors of valve chambers on the left side. Because of this a long induction pipe is used, which consists of a curving pipe from the carburetor to the cylinder heads which crosses the motor top between the cylinder castings to the left side, where it unites with an inverted U, which has one branch to each cylinder pair. Carrying the carburetor on the opposite side to the intake valves aids in relieving motor congestion on the valve side where are located the eight valves, the water pump, the exhaust manifold and the spark plugs—the last mentioned in the caps over the valve chamber heads.

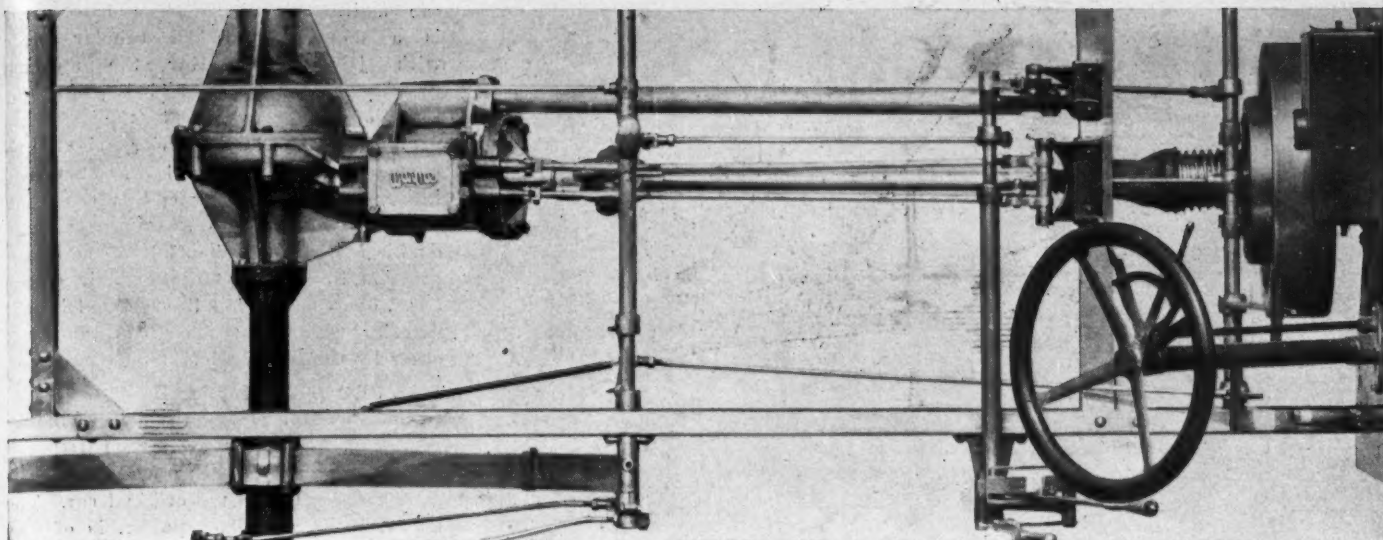
The motor's gray iron cylinders, cast in

pairs, have valve chambers on the left, with integral valve seatings and long flanged gray iron guides pressed into the floors of the valve chambers to serve for containing the valve stems. The cam rollers are in forked lifters and have pins driven through and ends projecting above the roller forks to enter slots in the flanged lifter guide bodies. The pistons are the usual Wayne construction, with four snap rings above the pin and three oil grooves below. The connecting rods are steel drop forgings with Parsons' white bronze half boxes. The crankcase consists of two aluminum castings, with the four supporting irons integral with the upper half, which also supports the crankshaft, whereas the lower half of the crankcase serves merely as an oil pan. The cams are applied to the camshaft and pinned to the same after the engine has been timed. The crankshaft gear is steel; the gears are enclosed in the crankcase and run in oil;



WAYNE MOTOR WITH WATER PUMP AND PIPES ON ONE SIDE





WAYNE TRANSMISSION AND GEARSHIFTING PARTS, INCLUDING EMERGENCY BRAKE CONNECTIONS AND TORSION BAR

the motor lubrication is a forced sight feed system with external lubricator, details of which system are given in a later paragraph on this page. The usual crankcase splash is used.

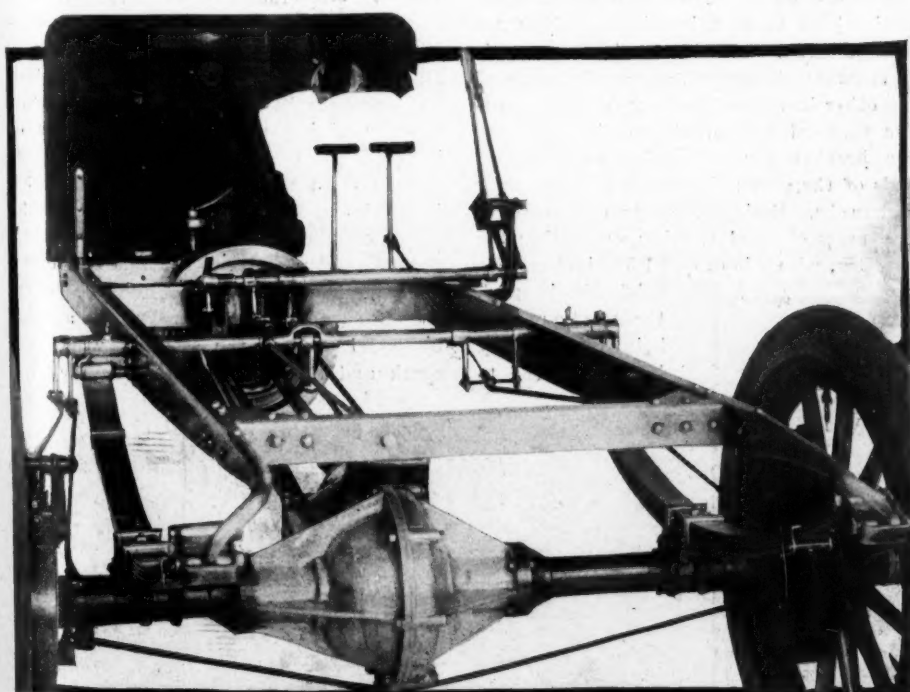
Driven from the rear end of the camshaft and carried on the top of a short vertical shaft slightly above and to the front of the flywheel is the commutator, which is a part of the jump spark ignition system, the other important factors in igniting the mixture being a four-unit dash coil, storage cell and dry cells for emergencies. This timer location was used on not a few cars this season and is more accessible than it at first appears in that access thereto is through a lifting door in the sloping portion of the car foot-board. This location has the additional merit of being adjacent to the dash coil and consequently the length of wiring between the coil and timer is considerably

reduced. Still further meritorious in this location is the ease with which all of the motor wires can be inclosed in a large-diameter fiber tube positioned horizontally over the cylinder heads.

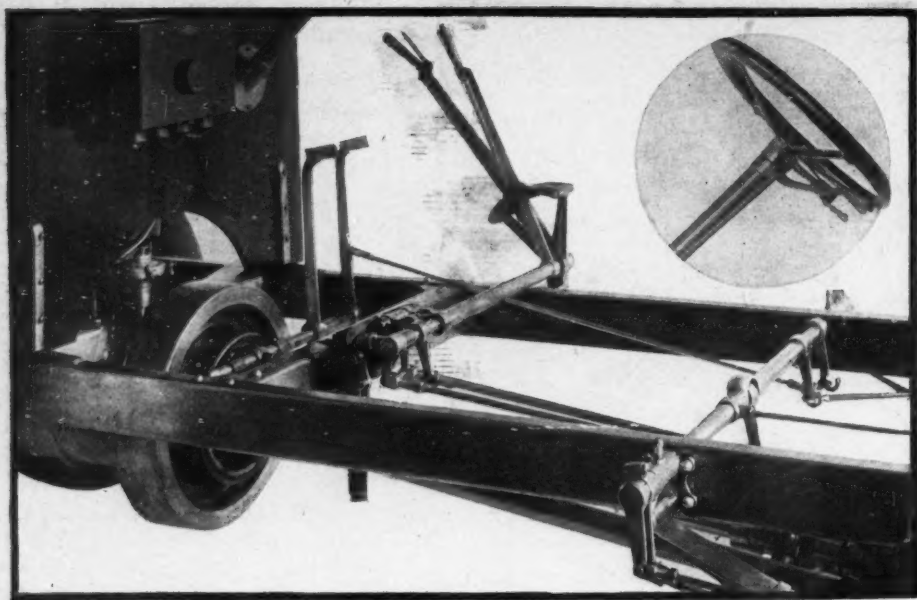
On the forward right motor support arm is the fire-feed lubricator, belt driven, and from which leads conduct the oil to the motor parts. Within the crankcase a splash is maintained and on the lower part of the piston are three oil grooves for distributing oil over the cylinder walls and to the rings and wrist pin bearings.

Nineteen hundred and seven marked the great increase in the turn towards carrying transmission sets on the rear axles. Previous to this year the Packard was looked upon as about the sole representative of this class, but now, beside the Wayne, Glide, Marion, Cameron, Thomas town cab, Pennsylvania, several minor car builders have taken up this construction.

As to the manner in which these rear-axle transmissions are supported there is much difference of design. In the Packard the tubular gearcase is formed integrally with the right half of the differential housing and has its front end inclosed by a large-sized plate, the forward opening permitting of the assembling of the gearset and carrying the shaft bearings. In the Wayne the same policy is pursued. In the Pennsylvania rear axle the differential housing is a manganese bronze housing made with a large spherical part for inclosing the differential gears and two lateral tubular extensions into which the axle sleeves are secured and a large box-shaped front extension with the top open for receiving the gearset shafts and gears. In it the rear face of the spherical differential casing is cut away to permit the assembling of the set and the removal of the differential and its parts without taking down the back axle. Returning to the Wayne construction, which is clearly shown in the chassis view as well as in the rear portion of the chassis, the gearset appears as a boxlike extension on the right half of the differential casting, with a cubical part on top in which is housed the gear shifter rods with their necessary parts. The entire top of this cubical portion is a removable lid and on the left of the gearcase is a cylindrical enlargement for receiving the rear end of the torsion tube, which tube is very long and finds support at its front end between upper and lower spring cushions attached to the frame crosspiece. The right and left halves of the differential casing proper are heavily webbed besides being stiffened by a truss rod extending from the axle ends beneath the housing. The gears are chrome nickel steel and are cut six pitch, but only to a depth equal to an eight-pitch tooth, giving a short thick tooth specially adapted to the work it has to do. The main transmission shaft is squared and sliding gears have square broached holes. A small trip is placed in the gearshift box on the rear axle, which prevents any chance of two



HEAVY WEBBING ON WAYNE DIFFERENTIAL CASTING



TWO PEDALS AND TWO LEVERS IN WAYNE CONTROL, ALSO STEERING WHEEL

gears getting into mesh at the same time. It always locks one of the two sliding gears in neutral position automatically.

The gear shift lever, working in an H-slot quadrant, is mounted on the outer end of a long sleeve carried on the cross-shaft to which the emergency brake lever is attached. On the inner end of this sleeve, and located practically above the driveshaft, as illustrated in the chassis illustration, is a short arm with a pin projecting from either side of it. In the illustration this pin is in engagement with the right shifter rod extending rearward to the gearset, and, of course, the change speed lever is in the outer slot of the quadrant. When the shifter rod is in the inner quadrant slot the left-hand pin engages with the left shifter rod. To be accurate, the pin does not engage direct with the rods, but rather enters a hole in the short arm of a bell crank which is hinged to a bracket on a cross piece of the frame. The long end of the bellcrank is hinged to the front end of the long shifter rod. The gearshift lever has a pawl near its lower end which strikes on a plug on the H plate and prevents its sliding into the reverse unless released by a push button on the top of the lever handle. The propeller shaft is a 1¼-inch solid-steel

shaft 36¾ inches long and fitted with self-oiling and dust-proof universal joints, one at each end. The great length of the shaft reduces its angularity to 2½ degrees maximum and practically nothing with the car running with its normal load. This construction gives a car with but little machinery under the center of the body, in fact, the gearshift and brake-applying rods being the only parts so located.

On the rear wheels are two sets of brakes, external emergencies, lever-applied, the lever standing erect when in neutral and when pulled back first disengages the clutch and then applies the brakes. The internal pedal brakes worked through an equalizer, do not disengage the clutch. Internals and externals are faced with camel's hair and act on drums 12 inches in diameter and 2 inches wide.

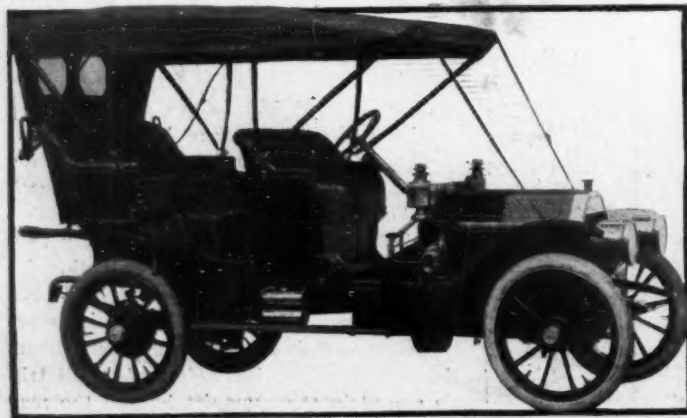
The chassis frame is one of the simplest of its kind in that its side members are straight from end to end, with but a pair of cross members used, one at the rear and the other in rear of the clutch for support—the forward end of the torsion rod and the bracket for supporting the forward ends of the gear shifter rods through their bellcranks. Besides these two cross pieces is a cross channel member supporting the radiator, which is dropped 5½ inches. No

subframe is used, the motor arms being sufficiently long to extend to

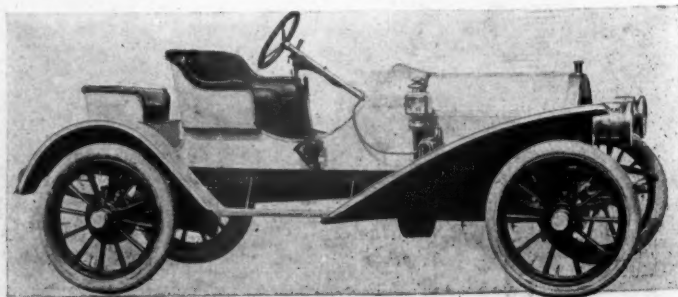
the mainframe pieces. The front axle is a downwardly-arched tubular piece with jaw endings for the steering knuckles, the tie rod being in the rear of the axle, and the steering gear contains an exterior right-hand thread and an interior left-hand thread integral with the lower end of the steering column shaft. The steering arm has a double bell crank end and takes two compression links, one at each end in crutch seats, one compression link pressed by the exterior thread nut movement and the other by the interior left-hand thread nut.

#### THE SECOND IMPERIAL

The Imperial Motor Car Co., Williamsport, Pa., has ready its second Imperial or, in other words, its 1908 model, which is more powerful than the original car. The motor, rated at 35-horsepower, is of prescribed four-cylinder construction and has a double system of ignition, the major half of which is a Eisemann ignition outfit. Communication between this motor and the selective transmission is through a metal-to metal floating ring clutch with cork inserts. In turn connecting with the transmission with the rear axle is a driveshaft which has been termed by the maker the straight line drive in that by dropping the car frame in back of the forward axle and ahead of the rear axle the driveshaft is kept practically horizontal. In other words, the center line of the crankshaft continued to the rear passes through the transmission and the differential. In spite of this practically horizontal driveshaft universal joints are used in order to care for the spring movement. This is the first car that has been placed on the market this fall in which the double drop in the frame is used. Both of these drops may be noted in the side view of the car, the forward drop being visible directly beneath the bonnet strap under the fender and the rear drop between the spokes in the front half of the rear wheel. Dropping the frame this way gives an exceedingly low body construction, thereby giving the car a low center of gravity. In the running gear are noted: I-beam front axle, floating rear axle, 36-inch wheels, four double-acting brakes located on the rear wheels and the usual curved fenders. Speed controls and emergency brakes are operated by side lever; the clutch and running brakes are applied by pedal and on the steering wheel are spark and throttle control. The racy ap-



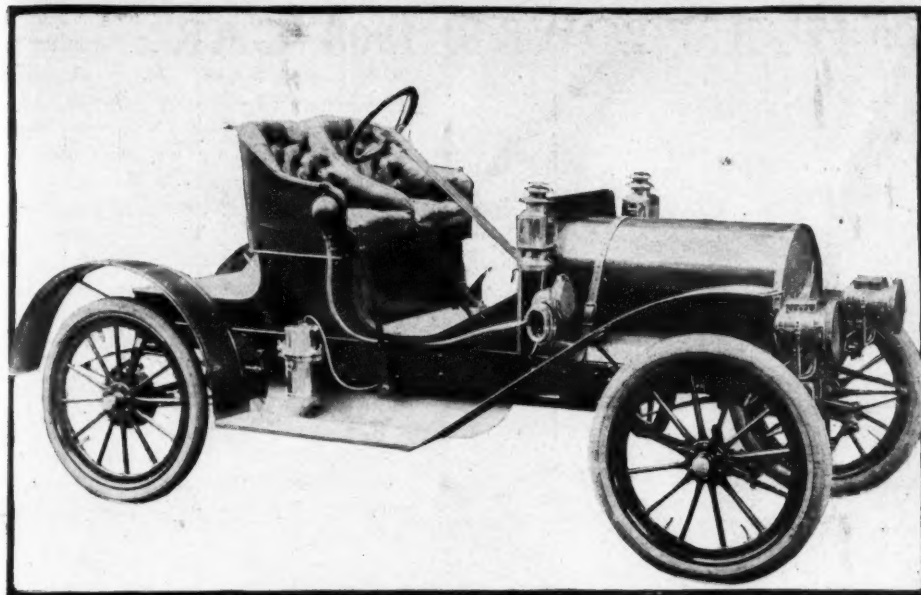
AS EQUIPPED WITH TOURING BODY



THE 1908 WAYNE

READY FOR THE ROAD AS A ROADSTER





CONTINENTAL TWO-CYLINDER, AIR-COOLED, SHAFT-DRIVEN ROADSTER

pearance of the body is due to carrying the radiator in the rear of the front axle, giving the steering column a good tilt, and carrying of the body especially low and using low individual seats, in the rear of which is a sloping deck carrying a conventional rumble seat. Differing from the majority of roadsters in the Imperial line is the straight dash, scarcely visible in the rear of the bonnet.

#### CHICAGO'S NEW CAR

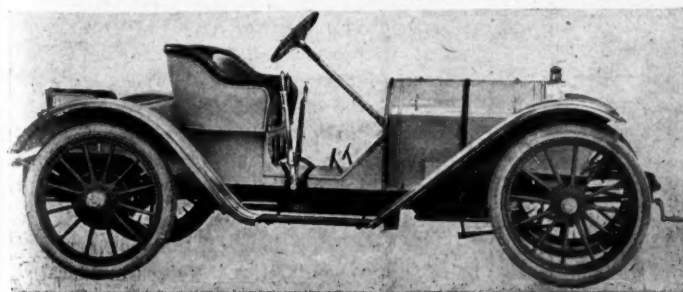
Among the new cars of the past summer which have made their appearance in the middle west is the Continental roadster, manufactured by the Continental Motor Car Co., Twentieth street and Western avenue, Chicago. This Continental as illustrated is a two-passenger roadster, having as its power generator a two-cylinder 12-14-horsepower opposed air-cooled motor placed transversely under a cylindrical style bonnet. At first glance the car might be taken for a four-cylinder machine, due to the length of the bonnet, which is equal to that of any medium-powered four-cylinder car. The motor flywheel, which is placed in front of the crankcase, can be seen beneath the middle of the bonnet in the illustration. Undoubtedly the long bonnet has been used to enhance the general appearance of the car. Besides having cylinders with a bore of 4½ inches and a 4-inch stroke the car has jump spark ignition, with a two-unit coil

placed on the dash, mechanical lubrication with motor parts fed from a lubricator located on the dash. Coupled with this is a plunger pump by which oil may be forced into the crankcase direct. In all other respects the motor is a typical two-cylinder construction with mechanical valves and cooling by integral circular flanges on the cylinders and radiating flanges on the cylinder heads. Mixture is supplied by a carburetor with gasoline supply carried in a gallon tank placed under the seat. Speed variations are through a two-speed planetary set, from which drive is transmitted to the rear axle by shaft with universal joints. On the rear hubs are band brakes operated by the side lever, which lever also is used for obtaining the high speed. The two pedals carried in the footboard are for low speed and reverse. Supporting the wood frame of the car is a complete set of four full elliptic springs; the front axle is a downwardly arched tubular member.

#### ANOTHER HIGH WHEELER

From the factory of the Single Center Buggy Co., Evansville, Ind., comes another Holsman disciple in that it is a high-wheeled runabout with 36-inch front wheels and 38-inch rear wheels, all shod with rubber tires. In other respects, however, this new Hoosier is very un-

like the Holsman, which is properly mentioned as the father of high-wheeled motor cars, in that it has a two-cylinder air-cooled motor mounted crosswise over the front axle with the flywheel in front of the engine, Maxwell fashion. Located under the seat is a friction transmission—Lambert style—in which is a metal disk attached to the engine shaft. Crossing the rear face of this disk is a fiber-tired wheel slidably mounted on cross shaft, the wheel being pressed against the surface of the disk by pedal. Drive from the cross shaft carrying the fiber-tired wheel is by side chain to the rear wheels, the cross shaft and rear wheel sprockets having respectively twelve and fifty-two teeth. The motor, with cylinders having 4½-inch bore and 4-inch stroke, operates on the four-cycle principle, and a rating of 12 to 15 horsepower. Conspicuous in its makeup is the use of automatic intake valves. Points in connection with this motor is a crankshaft 1½ inches in diameter, jump spark ignition with current taken from storage cell and passed through a two-unit coil, and Schebler carburetor. Engine speed is controlled by spark and throttle levers. Steering is through a worm and sector gear connected with an inclined steering column carrying a medium-sized steering wheel. A speed range of from 3 to 25 miles per hour is claimed, the variations being made through a side lever for moving the fiber-tired wheel on the cross shaft and pedal for engaging this wheel with the disk. The framework, a rectangular construction, is supported front and rear on a set of four full-elliptic springs. In spite of this and the large-diameter wheel the vehicle has not an excessive height. The body if put on a chassis with smaller wheels and pneumatic tires would pass for the regular runabout construction in that it has a conventional hood covering the motor, a straight dash and non-divided seat with sloping rear deck. Small fenders are carried. The company, besides manufacturing this car with solid rubber tires, furnishes it with 32-inch wheels carrying 3-inch pneumatics. The field for the high-wheeled car is rapidly expanding and although the Single Center product is not strictly a high-wheeled product it comes closer to that class than it does to the low-wheeled machines.

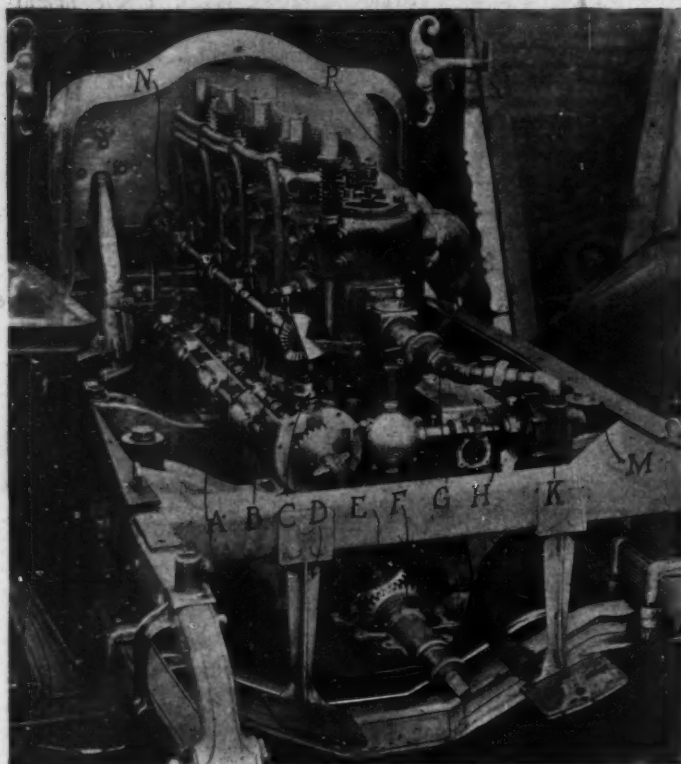


THE 1908 IMPERIAL ROADSTER WITH DROPPED FRAME TWO NEW CARS



THE SINGLE CENTER BUGGY-TYPE RUNABOUT

## MENGES 100-HORSEPOWER 1908 CAR



THREE-QUARTER FRONT VIEW OF MENGES MOTOR



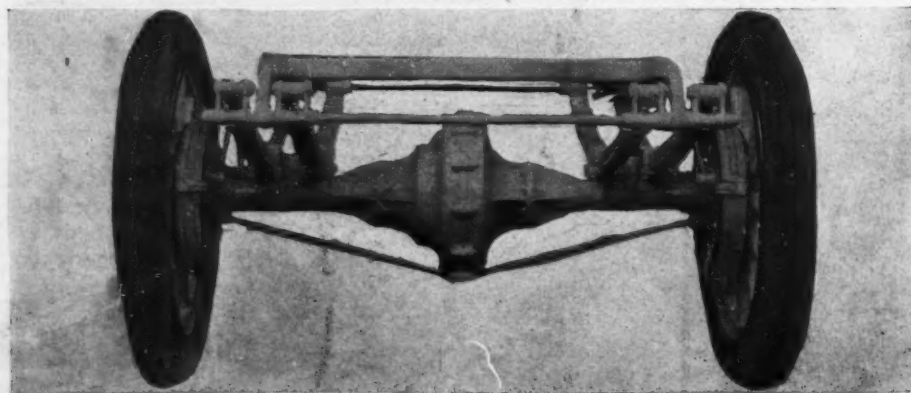
THE LUBRICATOR LOCATION ON THE MENGES MOTOR

BESIDES being the only 100-horsepower eight-passenger touring car manufactured the Menges product for the approaching season has many other points worthy of discussion. To enumerate: The motor has a self-starter, the work of the operator consisting in depressing a pedal in the rear of the regular clutch pedal; instead of effecting the complete motor control through varying the spark and throttle, the intake valves can be held open during any fraction of the compression stroke, thereby allowing a part of the useful charge that was drawn into the cylinder being forced out before the valve closes and reducing the compression to 15 pounds, a task accomplished by using spiral closing intake valves and making the camshaft so it slides in its bushings; the dual ignition includes a jump spark system together with a make-and-break mechanism, the

spark plug and the make-and-break parts for each cylinder being located in one gray iron cylindrical piece held into the cylinder side by a breech block thread; in the carbureter are three spraying nozzles, the gasoline flow from which is under valve control, the three valves being subject to cam movement whereby one or all may be cut off or left open and whereby the motor speed is reduced with clutch disengagement; instead of hanging the motor rigidly on the side pieces of the main frame through its integral arms, two on each side, small coil springs are interspersed between these arms and the frame side pieces to take up much of the side frame vibration; while most builders are content with a set of two semi-elliptic, or full elliptic or one platform spring in the rear of the car, the Menges is constructed with four semi-elliptics, two at

each side, placed side by side, one outside of the frame side pieces and the other inside of it; in the expanding clutch are four equal-sized segments which are given a radical movement for engagement; in general the cams on the camshaft lift a valve rod that either lifts the valve directly off its seating or depresses it from its seat through an overhead rocker arm but in the Menges car neither is used, rather the camshaft cams pull down rods which parallel the cylinders and at their top carry curved arms which are connected with the tops of the valve stems while within the crankcase, these valve rods have horizontal parts underneath the cams, so the cam in its revolution presses them down. The oiler for the motor has an automatic control by which the quantity of oil fed is automatically reduced should the oiler supply get very low, as well as having two oil pumps. In brief, these are the cardinal talking points of the car. The designer of the Menges car, built by the Menges Motor Car Co., Grand Rapids, Mich., in explaining the use of a 100-horsepower motor for a touring car argues that with so much horsepower, obtained from four separately-cast cylinders with  $6\frac{1}{8}$ -inch bore and  $5\frac{1}{2}$ -inch stroke, it is possible to do all the hard car work, hill-climbing, mud-touring and rough work on the high or direct drive with apparent ease.

Three illustrations of the motor reveal its many peculiarities. Valves are located in the cylinder heads. The right side has the intake manifold, the left the exhaust

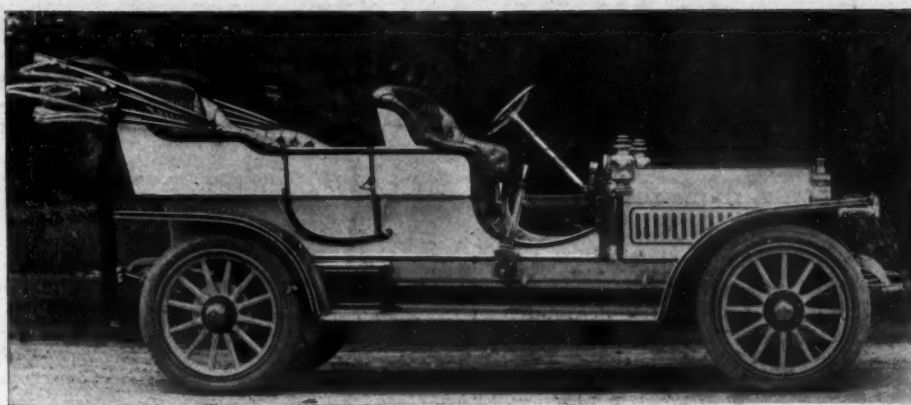


MENGES FOUR-SEMI-ELLIPTIC REAR SPRING SUSPENSION



pipings. In the three-quarter front view A shows the camshaft grease-packed in a box-like compartment on the side of the crankcase; B is the ignition camshaft with the timer N located on the rear end, the cams for the make-and-break parts being disposed regularly along its length opposite the four cylinders. The drive is through a short vertical shaft at the forward end which takes its movement from the camshaft and on which is a sliding collar C by which the timing is accomplished. E is the bevel by which the camshaft is driven from the crankshaft F, these gears being completely encased in the finished motor. G marks the fanshaft, gear-driven and carrying a friction and spring connection with the fan hub; H is the positive oiler gear-driven off a cross-shaft which takes its power from the vertical shaft for driving the fan; K is the water pump driven off a continuation of the oiler drive-shaft. M is the coiled spring interposed between the motor support arm and the side piece of the car frame. In this illustration the intake manifold is left off, the cover is off the camshaft compartment, the breech ignition blocks carry the spark plugs only, the make-and-break mechanisms not being in place, and on the intake side on the side of the camshaft box is another camshaft used for carrying the three cams for controlling the carbureter nozzles.

In a detailed examination of the valves and their mode of opening and closing it will be observed first of all that the valve opening, or lifter rods as they are generally termed, rises up the right side of the cylinder, having a long bearing on the side of the cylinder head. Above this bearing is the valve spring, located high

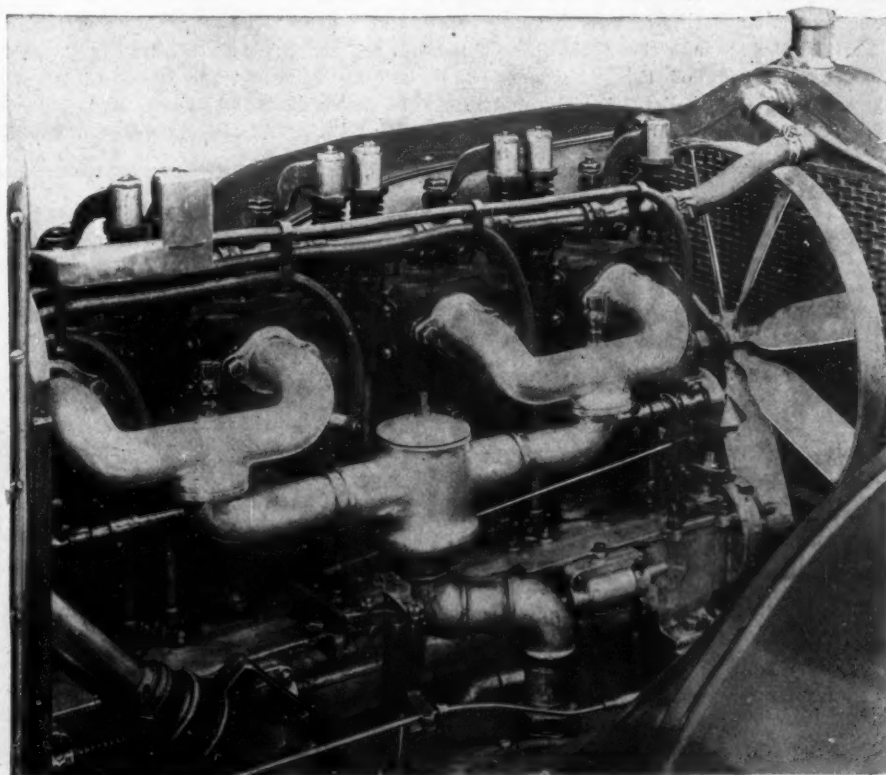
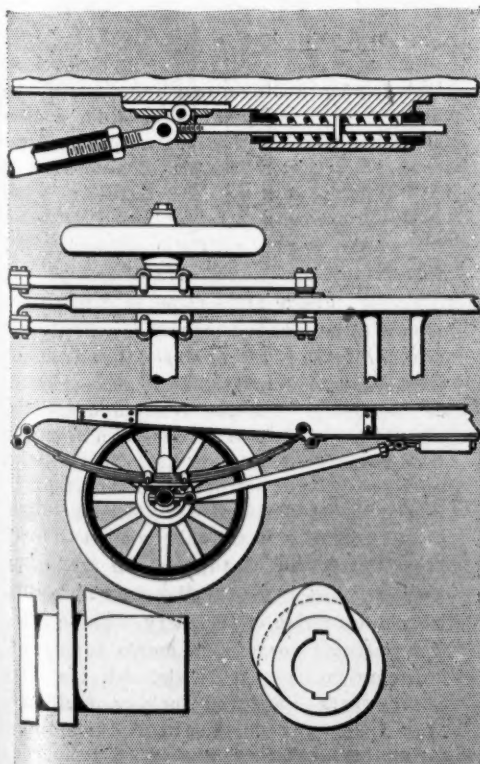


MENGES 1908 EIGHT-PASSENGER FOUR-CYLINDER TOURING CAR

and away from all heat. This spring constantly lifts the rod and through a curved arm on its top pulls upward on the valve, in that the valve end of the curved arm is forked and rests in a groove in the top of the valve stem. On the lower end of the valve rod is an integral bracket carried at right angles which extends under the cam on the camshaft so that as the cam revolves it strikes the brackets, pulling the valve rod down.

The carbureter, a Menges design, has a float control of the ring style. Within this float hub are three spraying nozzles, each with its own needle valve controlled by a cam so that only one is opened at a time as determined by the position of the control lever on the top of the steering wheel, or pedal in the footboard. By linking the carbureter camshaft to the clutch mechanism it is possible to cut off the two larger spraying nozzles, leaving the smaller one to furnish the mixture. The smaller nozzle will furnish a crankshaft speed of 150

revolutions per minute, the second or intermediate nozzle an 800 speed and the three combined any higher speeds. In the intake manifold between the carbureter and the cylinders is a lightly-loaded poppet valve inserted to prevent the mixture which escapes back from one cylinder on its compression stroke being returned to the carbureter, and incidentally aiding in conducting this mixture to another cylinder. This valve is also claimed to equalize the gas pressures between the cylinders and carbureter and thereby eliminate those rapid fluctuations of suction on the gasoline in the nozzles. Further, the air supply for the carbureter is drawn from the crankcase through a 1¼-inch pipe, the air in turn entering the crankcase through three ¾-inch screened standpipes which rise 6 inches above the level of the crankcase top. Air is so drawn from the crankcase with the aim of taking it in at a more uniform temperature at all seasons of the year.

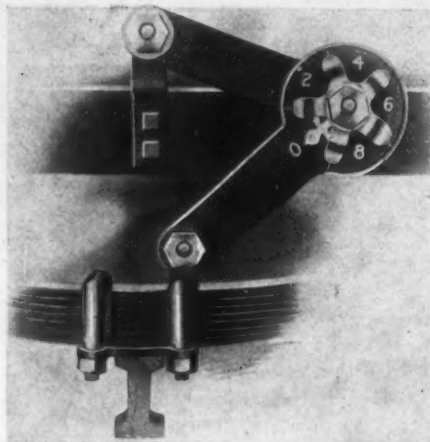


MENGES RADIUS ROD CONSTRUCTION, DOUBLE REAR SPRING SCHEME, INTAKE CAMS AND RIGHT SIDE OF MOTOR

# DEVELOPMENT BRIEFS

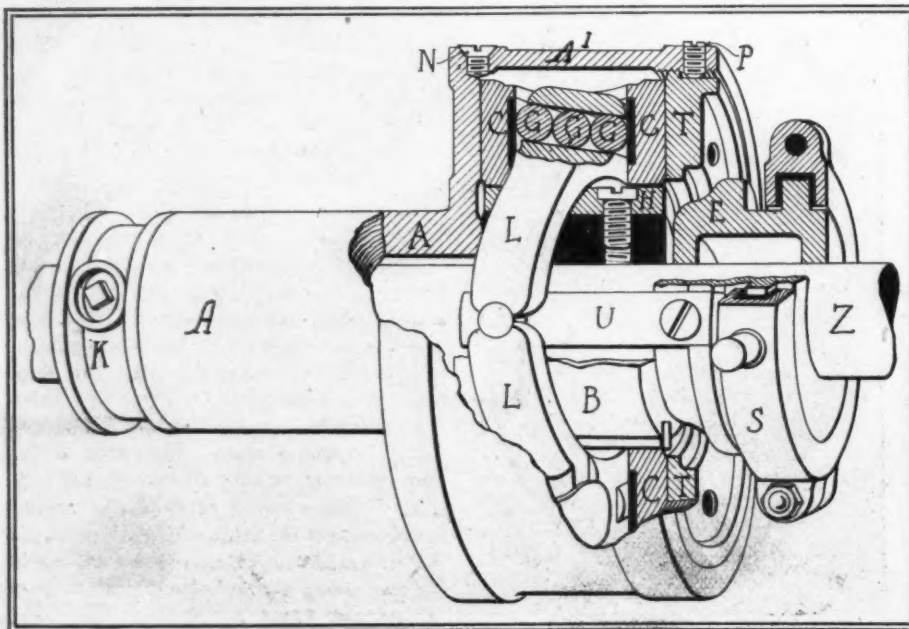
## CLUTCH A DRUM-DISK AFFAIR

The Akron clutch for motor car flywheels is not a cone clutch, it is not an expanding clutch, it is not a contracting band clutch and it is not a disk clutch in the exact sense of the word; rather it is a combination drum-disk affair in that there is a hollow cylindrical drum carried on the driven shaft. Within this drum are two circular disks that are pressed outward against the ends of the drum by means of a toggle joint and roller combination. The part sectional illustration explains the clutch. A is the driven shaft, that is the shaft which in a car connects with the gearset, and Z is the shaft that connects with the flywheel of the motor or is the motor crankshaft. This shows how the shafts A and Z are coupled together. On shaft A is the hollow drum or cylinder A1 with one removable end T which threads into the drum and is held at any adjustment by the screw P which enters a series of notches in T. Inside the drum are the two disks C, one bearing upon the fixed end of the drum and the other upon the removable drum end T. These disks rotate with the shaft Z and are coupled to it by the keys H sunk into or fixed to the driving member B secured to the shaft Z. The disks C are free to move or slide on the keys H. In engaging the clutch the disks C must be forced against the ends of the drum A1 which movement is accomplished by a toggle mechanism consisting of two forked levers L with holes through them. In these holes is lodged a set of three hardened and ground tool steel rollers G. The end rollers of the series bear upon the disks C.



1908 HARTFORD SHOCK ABSORBER

The intermediate roller is but a spacer between the end rollers. When the levers L are straight up and down, or at right angles to the shaft Z then the three rollers are in a horizontal plane and the clutch is engaged, the disks C being forced against the inner ends of the clutch drum. The levers are brought to this position by the sliding collar E and the shifter ring S. With the levers L in the position shown in the illustration, that is slightly out of the vertical so the series of rollers G are on the slant instead of in the horizontal, the clutch is disengaged or it might be slightly engaged according to the adjustment of the removable end T of the clutch drum. The inner ends of the levers L are connected by steel links U with the sliding collar E. The drum A1 is entirely filled with oil and is supposed to be kept filled during all time of usage.



AKRON EXPANDING CLUTCH FOR MOTOR CARS

## GOVERNS THE FRICTION

The most important feature in the 1908 Hartford shock absorber is the addition of a recording arrow on the outside which in the illustration points to zero. In conjunction with this arrow is a number dial carrying the figures 1, 2, 3, 4, 5, 6, 7, 8, 9. The use of this pointer and dial is that the absorber may be properly adjusted to the different carloads. Its inception was due to some car owners declaring they could not get the correct friction on all four absorbers. According to the dial a car weighing from 1,600 to 1,800 pounds should have the arrow pointed at zero. The remainder of the schedule is:

1,800 to 2,000 pounds.....	1
2,000 to 2,200 pounds.....	2
2,200 to 2,400 pounds.....	3
2,400 to 2,600 pounds.....	4
2,600 to 3,000 pounds.....	5
3,000 to 3,500 pounds.....	6
3,500 to 4,100 pounds.....	7
4,100 to 4,800 pounds.....	8
4,800 to 5,500 pounds.....	9

Although this table is accurate in every respect some little variation from these figures may be necessary on account of the length of time the car has been in use and the care or abuse it has received. Once a set of shock absorbers has been adjusted, however, the maker claims that further attention will not be necessary. A few changes have been made in the 1908 Hartford, although the general principle of friction absorption has not been changed. In brief its construction consists of three arms of equal dimensions, two paired and attached to the center of the spring, and the third, a middle arm, connected to the bracket on the car frame and coupled at its other end to the circular endings of the other two arms by a center stud, a construction which makes the absorber interchangeable and reversible. The center or middle arm working on a hardened steel bushing, gives a straight up and down movement, which prevents shearing and side swaying. The inner surfaces of the lower or outside arms come in direct contact with cup-shaped brass disks, firmly secured, instead of against the friction washers as heretofore, and on each side of the center arm the friction disks are attached. Over these a brass cup is fitted into which the friction and brass disks telescope. Its construction is such that it lubricates automatically, sufficient lubricant extracting itself only when the heat from the action of the moving frictional parts reaches a point just before abrasion, when lubrication is necessary. These friction surfaces contain an ample supply of lubricant to last, it is claimed, the life of the car. Improved locking facilities provide easy adjustment. A five-prong spring compensating washer of tempered steel on the center stud, held in place by a self-locking nut, takes up any wear.



# CURRENT MOTOR CAR PATENTS

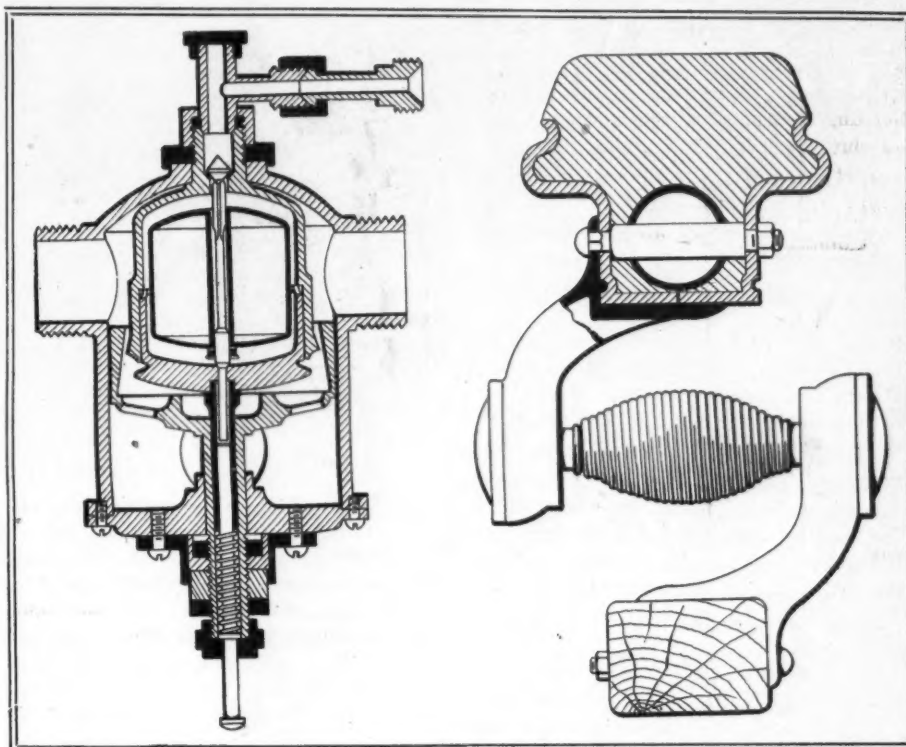
**Sliding Valves**—No. 867,713, dated October 8; to J. E. Elverson, Catasauqua, Pa.—In the head of the cylinder is a semi-circular opening. Arranged to open and close this is a semi-circular shaped valve, with its position reversed in respect to the opening, so that when opening the valve the convex sides of the valve and opening approach, giving a gradual opening. In closing the diameters of the semi-circles approach, giving a very rapid closing. The patent does not refer to the method of operating the valves, but solely to the valve and opening shape and to the relative position of these when opening and closing.

**Tire Shoe or Casing**—No. 867,717, dated October 8; to G. R. Eukers and R. H. Acheson, Chicopee, Mass.—Constituting the tire casing is a series of rings of coarse bands or rope pieces forming a chamber identical in shape with the outer casing of a tire. Holding these many bands or ropes together are repeated series of metal links that are woven, basket form, among the rope strands, these links forming the entire visible outer surface of the tire.

**Spring Rim**—No. 867,614, dated October 8; to B. C. Seaton, St. Louis, Mo.—The solid rubber tire is secured to a metal ring or rim which does not rest upon the wood rim of the tire, but is separated therefrom by a circular space equal in radial width to the depth of the rubber tire. The union between the metal ring carrying the tire and the wood rim of the wheel is through a series of coiled springs placed transversely of the rim. The bolt passing through the spring carries a ball on each end, and is supported at one end through a ball and socket joint through a bracket carried on the wood rim of the wheel, and at the other end through a ball and socket joint from a bracket attached to the metal ring carrying the rubber tire.

**Elastic Solid Rubber Tire**—No. 867,756, dated October 8; to J. W. Rock, Akron, O. To increase elasticity in a solid rubber tire the inventor cuts notches in the tread of the tire and across its entire width, these notches extending two-thirds of the way to the tire base. The notches are not cut radially, but at a definite angle to the wheel radii.

**Two-Cylinder Tire Pump**—No. 867,616, dated October 13; to S. G. Skinner, Chicago, Ill.—The pump has two vertical cylinders of different diameter, the smaller diameter cylinder placed within the larger diameter one—both cylinders being of the same length. The piston is a tubular member working in the larger-diameter cylinder or between the large and small-diameter cylinders. On the lower end of the piston rod is a down-turned leather cup



WEINANT'S CONCENTRIC CARBURETER

SEATON'S SPRING RIM

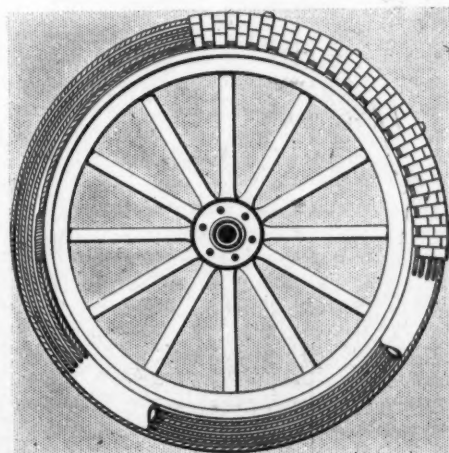
working on the inner surface of the outer cylinder and in the inner cylinder is a leather up-turned cup. The piston rod is provided with a valved passage leading to the interior of the rod from below the first mentioned piston. The inner cylinder has a valved passage leading to the interior of this cylinder from above the other piston.

**Novel Sparker**—Instead of cumbering the motor with a mass of electrical equipment to get a spark in the cylinder to ignite the mixture, the inventor prefers affixing to the cylinder side a chamber in which is an emery wheel constantly revolving at high speed. In conjunction with

the emery wheel is a steel pin worked by the piston so that at predetermined intervals the steel pin is brought into conjunction with the emery wheel and a flood of sparks emitted.

**Protected Air Tubes**—No. 867,588, dated October 8; to M. P. Morrison, Atlanta, Ga.—The air tube is protected by placing it in a channel in the wheel rim and mounting a solid rubber tire on a rim which is in turn carried on the air chamber. The wheel rim is made with a pair of very deep parallel vertical flanges on each side. In the space between the flanges on each side of the rims works a radial flange carried on the inside of the tire rim. The tire-rim flanges are slotted and through the rim flanges are placed several bolts to hold the tire rim to the wheel rim.

**Concentric Carburetor**—No. 867,859, dated October 8; to E. M. J. Weinant and J. Bogey, Chicago—The patent has special reference to a ring valve which closes the annular space between the top of the float chamber and the walls of the mixing chamber, which is concentric with the float chamber and surrounds it. This ring valve is a sliding fit in the carburetor casing and has a sloping surface contiguous to the float reservoir, so that by raising and lowering it the opening area can be varied. Exit passages for the gasoline are arranged in this annular opening and the air entering the casing at the bottom rises through the annular space.



EUKERS' TIRE CASING



## FROM THE FOUR WINDS



**Quakers Want More Racing**—Plans are afoot for the formation in Philadelphia of a racing association. A preliminary meeting was held last week and \$10,000 was pledged to float the company. H. Allen Dalley was elected president. As a starter it is proposed to promote a 24-hour race at Point Breeze track for October 25-26 for a \$1,000 guaranteed purse.

**Another Use for a Car**—At the Tarrytown plant of the Maxwell-Briscoe company, the roof of the main building was damaged by the falling of a tree. When it was decided to repair it J. D. Maxwell made use of one of the 12-horsepower runabouts as a hoisting engine. This proved so successful that all the repair supplies were rapidly hauled on top. It has been suggested by Mr. Maxwell that the motor car might be made to pay for itself on the farm by sawing wood, while on Sunday it could replace the old top buggy and take the entire family to church.

**Klubo Prospering**—After spending something over \$4,000 in getting the old mansion into shape Philadelphia's ultra-fashionable women's motoring association—it glories in the euphonious title—La Moviganta Klubo, which is Esperanto for the Automobile Club—moved into Benedict Arnold's old home in Fairmount park. The city gives the klubo the use of the house rent free, with the proviso that it, the klubo, keeps the same in condition. There are about thirty-five movigantesses at present constituting the klubo's active membership, which, being very select, is not open to all who may be willing to pay the admission fee. In addition there are some half hundred contributing movigantesses who while not moviganta owners are yet eligible by reason of their position in society to join the chosen circle. There also is a waiting list—from which it may



FRANKLIN ON PIKE'S PEAK

be gathered that the klubo is in a fair way of becoming a success. At the opening meeting an elaborate schedule of 2 and 3-day tours was adopted. The officers of the klubo are: President, Miss Margaret L. Corlies; vice-president, Miss Frances C. Griscom; secretary, Miss Frances von Lehr Earle; treasurer, Miss J. Dilworth Beggs.

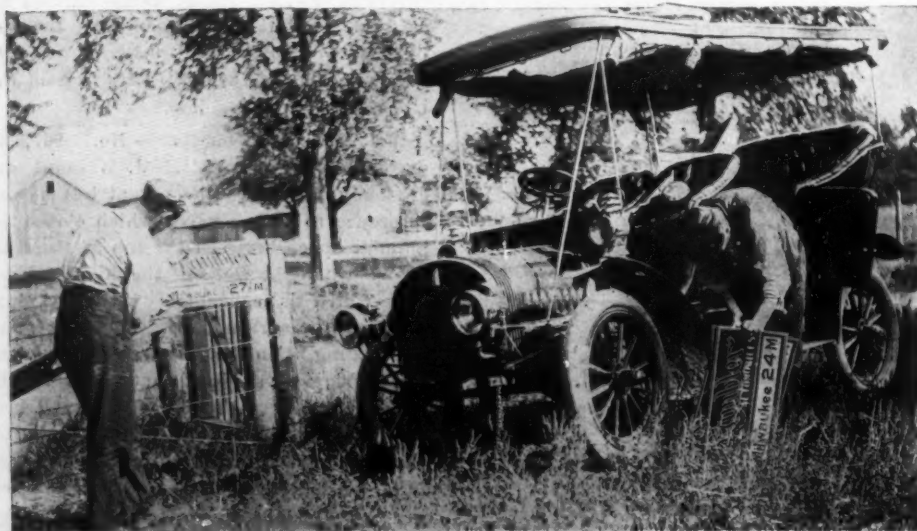
**Mean Business**—"Take the loose stones out of your roads and erect suitable signposts or we will prosecute you individually." That's the way the Wilkes-Barre Automobile Club talks to the road supervisors, township commissioners and borough councilmen of near-by Luzerne county. The club's legal committee has for a long time been urging the various responsible parties to do their work properly, but with indifferent success. Meanwhile the club has been spending its own good money putting up mileage and sign-posts on all the roads leading into Wilkes-Barre, one of the best features of its work along this line being the posting of huge danger signs

at points on the numerous mountain roads where accidents are liable to happen—"Bad S curve," "See that your brakes are working," etc. A reasonable time will be given the supervisors et al. to get to work. After that the court will be appealed to.

**May Abolish Toll Fees**—Philadelphia motorists are rejoicing over the prospect of the early abolition of the toll-gates on the Chester pike. The matter is now being argued in the Delaware county court at Media. The turnpike company wants \$65,000; the jury of view recently named the sum of \$35,000 as a fair figure. The present proceedings are to bring the widely variant claims of the owners and the county to a figure which will be satisfactory to both.

**Durham in Speed Trap**—Iz Durham, the alter ego of James McNichol, the Philadelphia political boss, who recently lost his license for trying to belittle Jersey's motor laws, got his last week. Durham was getting busy in the way of incinerating the White Horse pike when he ran into the clutches of the self-same magistrate who first fined McNichol \$13.50 and was later compelled to return the money on a technicality. This time there was no flaw in the charge, and Durham is minus the usual amount it costs a Philadelphia motorist who runs into the Elwood trap.

**Strenuous Touring**—M. F. Donnellan, of Hartford, Conn., who has been touring the state of Pennsylvania in a 24-horsepower Columbia touring car, writes the Electric Vehicle Co. of some of his experiences. Mr. Donnellan drove from Hartford to New York and from there to Philadelphia, where he remained for a few days. The most strenuous part of the trip occurred a few days ago. Most of the journey was through country in the immediate vicinity of the Delaware river, which has been somewhat swollen of late. In one spot Donnellan encountered a quarter-mile stretch of road where the river had overflowed its banks and as he had proceeded too far to turn back he had to continue. The Columbia people do not pretend to build amphibians, but Donnellan since his experience is of the opinion that they have every right to set up such a claim. This stretch of water was so deep that the running boards were completely submerged and as the driver was new to the country caution was necessary. The run was made in safety, however, though at times the car skidded dangerously near deep water. After this stretch had been passed the running was a shade better until another bad spot was reached where a trolley trestle and a light traffic bridge spanned a stream side by side. The freshet had



RAMBLER PEOPLE PLACING SIGN BOARDS IN WISCONSIN



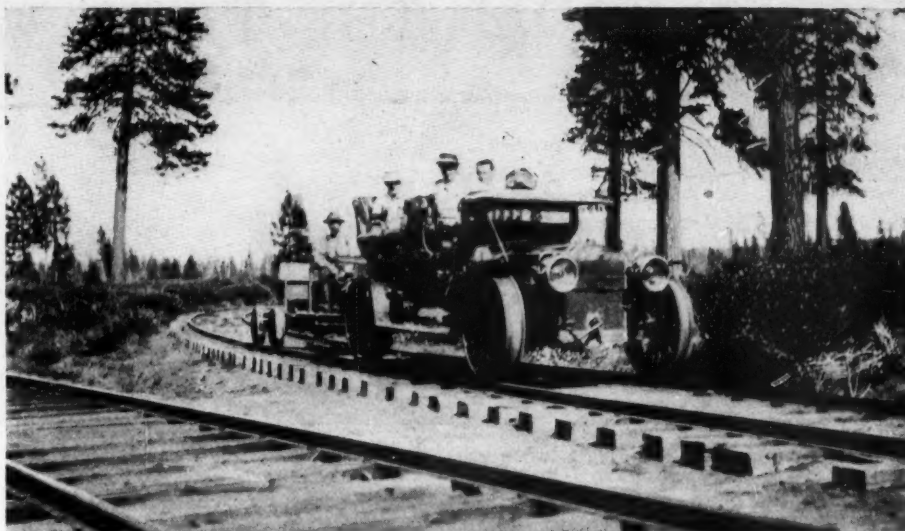
carried away the traffic bridge and Donnellan either had to cross the trestle or swim, and he decided on the former course, making the ticklish trip without incident.

**European Tendencies**—H. N. Harding, the race driver, has returned from Europe, where he has been touring since spring. Mr. Harding attended all the principal road races and visited a number of the large factories in Italy, France and Germany. He states that the trend in Europe is toward cars of medium horsepower and that many American cars have been seen on European roads this year.

**Franklin to the Rescue**—Charles H. Smith and a party of friends from Denver, Col., were on a trip recently to Pike's peak in a Franklin car when they overtook a large touring car stranded in a mudhole. It was half way up the main road to the garden of the gods. The Franklin gave assistance and soon the big car was on the way again. In the accompanying photograph Mr. Smith's Franklin is at the right.

**Importers Are Encouraged**—The Importers' Automobile Salon has been watching carefully the registration of cars during the present year and states that the figures received from Albany show that foreign machines gained in the number of registrations in September over 25 per cent as compared with the record in August. Reports from American importers of the Panhard, Itala, Renault and de Dietrich are said to show that more business has been done during the last 2 or 3 weeks than during any similar period since the first of the year.

**Endurance Run New Year's**—The contest committee of the Quaker City Motor Club already is at work on the details of its 1908 opener—the annual New Year's endurance run. It will be a 2-day affair, and the course will approximate 200 miles in length. The start will be made January 1 from the club's quarters at the Majestic, and the outer mark will be Allentown, which, although but 56 miles from Philadelphia, will be reached via Easton and Nazareth to make up the century. On the 20th the return trip will be made via Reading. There will be four



THOMAS FLYER RUNS ON RAILS LIKE GLIDDEN DID

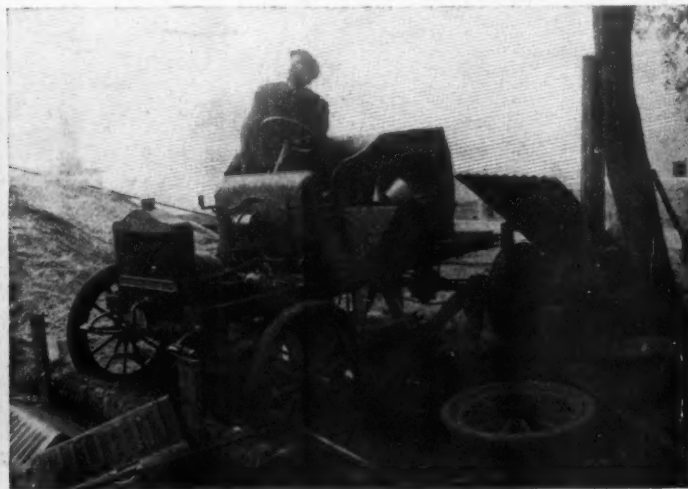
classes—A, for touring cars owned and entered by Q. C. M. C. members, for the MacDonald & Campbell cup; B, touring runabouts, owned by members; C, small runabouts, which will not be compelled to arrive at intermediate checking stations on schedule, and D, open to all types of cars. There will be three checking points.

**Ask State Aid**—Up to date the Connecticut highway commission has received notices from 134 towns asking for the state appropriation for road betterment. Thirty-four towns remain to be heard from. This is a remarkably good showing and gives some idea of just how extensive is the movement in Connecticut. Ansonia, Avon, Chester, Preston and Farmington each has applied for \$20,000 for road improvement. Farmington is one of the very first towns in the state of Connecticut to experiment with tarvia.

**Politicians Are Wise**—That the motor car is somewhat of a versatile commodity was duly exemplified during the state election in Connecticut. In Hartford, for instance, there is employed a large percentage of the voting element residing in towns within a radius of 15 miles. In many of these outlying districts the voters would have to leave for work before they

could cast a ballot and few of them would feel inclined to journey back home for the purpose of voting. Herein was the motor car equal to the emergency for the reason that the several nominees running for office had in service numerous cars which were used to take the voters back home to vote after which they were returned to the scene of their labors. Of course the speed law was in many cases fractured, but then it was deemed advisable to permit of a little extra speed on 1 day at least, hence none suffered in consequence.

**Dragon Trip Abandoned**—The Dragon which was started from San Francisco on September 4 with the intention of being run through to New York under the guidance of Charles A. D'Arcy, did not get any further east than Omaha. A letter received from D'Arcy at that point states that the run was made too late in the season and a series of unfortunate accidents had made it impossible to go forward with the car. He added that as soon as the weather is favorable in the spring another attempt on the across-the-continent record will be made. The car has been sent to the Philadelphia factory, where it will be overhauled and shipped back to San Francisco.



J. D. MAXWELL CONVERTS MOTOR CAR INTO HOISTING MACHINE AT TARRYTOWN FACTORY



FIVE NEW MOTORISTS AT JOLIET, ILL., DRIVE CARS HOME FROM RAMBLER FACTORY

**Change of Name**—It has been announced that the name of the Oliver Instrument Co., of Minneapolis, has been changed to the Index Speed Indicator Co.

**Keeps the Acme**—John L. Scull, who first as a member of the Scull-Morris Co. and later alone, handled the Acme and Aerocar in Philadelphia, has given up the agency for the latter machine and will devote his energies to the Acme.

**McDuffee Appointments**—J. H. McDuffee, western distributor for the Kisselkar, announces he has appointed the following agents in his territory: Leon T. Shettler, Los Angeles, Cal.; A. T. Wilson Automobile Co., Denver, Colo.; F. A. Bennett, Portland, Ore.; Shoemaker & Lynn Co., Missoula, Mont.; Arizona Motor Co., Phoenix, Ariz.

**New Scheme Being Tried**—The Motor Car Maintenance and Repair Co. made its debut in New York this week. As the name implies, the company aims to store and maintain cars for owners at a guaranteed sum. At present the company is only prepared to take care of Maxwell cars, having made an arrangement with the Maxwell-Briscoe company whereby it guarantees to owners and prospective buyers of Maxwell cars to store and keep the same in repair for a sum not to exceed regular New York garage charges. Full and uninterrupted use of the car is a feature of the guarantee. The company

states that it is negotiating with other manufacturers and expects to be able to make the same offer in regard to other makes of cars in the near future.

**New Chicago Concern**—The Owen Thomas Motor Car Co., recently organized, has opened headquarters in room 645 First National bank building, Chicago, and is making its plans to turn out twenty-five six-cylinder cars for 1908. J. W. Kendrick is president of the concern, Owen Thomas vice-president and mechanical and consulting engineer and S. M. Smith secretary and treasurer.

**Practical Teaching**—Steinhart & Jensen, Rambler representatives at Joliet, recently arranged a unique system of instruction for their customers. Five citizens of Joliet placed orders for Rambler four-cylinder touring cars and it so happened that the cars were ready for delivery at about the same time. The Joliet agents therefore had the five customers go to the factory and after a day spent in investigating the Rambler plant, all started on a cross-country trip to Joliet, each new owner being provided with an experienced driver as an instructor. The distance, 120 miles, was made without trouble or accident. This gave the owners a practical knowledge of road service that could never have been obtained by the ordinary method of instructions on the city streets. In addition to this all enjoyed a pleasant junket

and attained a better knowledge of general motor car construction than many who have owned and driven motor cars for several seasons.

**Succeeds F. E. Dayton**—W. F. Fischer is the successor of Fred E. Dayton as manager of the Chicago branch of the Electric Vehicle Co. Mr. Fischer is from the company's forces in Hartford and took possession of his new position in the Chicago branch this week.

**Made a Great Mistake**—In a report read before the National Carriage Builders' Association, which met in convention in New York last week, John Hassett, of Amesbury, Mass., said that the retail dealers in horse-drawn vehicles had made a great mistake in not taking up the sale of motor cars in conjunction with their regular business when the motor car first was introduced. In his report Mr. Hassett said in part: "It is no more than a matter of common knowledge that the general attitude of the carriage manufacturers toward the motor industry was of misgiving and resentment. The motor car has been, incidentally, a source of profit to the carriage manufacturer on the one hand. On the other hand, it is true that the taking over of this branch of the motor business has been a distinct advantage to the motor industry."

**Diamond Test for 1908**—Competition in the field of quality only is the text and essence of the formal 1908 announcement of the Diamond Rubber Co. It is made public this week, and bears the signatures of A. H. Marks, chief of the manufacturing end in the Diamond factories and W. B. Miller, general sales manager. The greater expense of the Diamond wrapped tread method of manufacture is pointed out and the statement made that if prices were reduced on Diamond tires it would force the abandonment of the wrapped tread Diamond tire, developed only by years of effort and large outlays of money. The company will entertain no such suggestion, but on the other hand will not solicit business on a competitive price basis. The trade and public are asked to consider quality before price, and ultimate economy



NEW FIREPROOF BUILDING WHERE SCHERLER CARBURETERS ARE MADE



in the purchase of tires, rather than first cost. The record of the Marsh rim is also mentioned. As to price of both tires and rims, net lists have been published, and they are for everybody.

**Wood in Tire Game**—Albert E. Wood, connected with the Vim tire people in the bicycle days, has returned to the business and now is city salesman in the Chicago branch of the Goodyear tire people.

**Demonstrate Steel Wheels**—President Fish and Vice-President Metzel, of the Indestructible Steel Wheel Co., of Lebanon, Ind., and Chicago, have just completed a tour of the various cities in Michigan, Ohio and Indiana, visiting the motor car manufacturers at each point. The tour was made in a Premier roadster and the many stretches of heavy mud encountered enabled the steel-wheeled car to demonstrate that it could speed along without collecting the mud as wood wheels are claimed to do while traveling under similar road conditions.

**Dolson Creditors Meet**—At a meeting of the Dolson creditors in Charlotte, Mich., Monday there were present about twenty-five creditors representing claims to the amount of \$81,000 out of a total of \$137,000 distributed among 300 creditors. The largest creditors are: A. O. Smith, of Milwaukee, \$18,000; Goodyear Tire Co., \$13,000; Muncie Auto Parts Co., \$10,500; Long Mfg. Co., \$5,000; W. K. Bradden & Co., \$1,800. The final proposition to the Dolson company was that the creditors would accept 5 per cent in cash, 45 per cent in notes at 6, 12, 18 and 24 months; that 25 per cent of the 45 per cent draw 6 per cent, with the balance in common stock pro rata according to the amount owed, the creditors to take the business and conduct it until all claims are paid in full, with a representation of three out of five directors on the board. The stockholders objected to the creditors having control of the board, but the creditors insist this is their ultimatum and that if it is not accepted they will throw the concern into bankruptcy proceedings and get what they can—about 25 or 30 per cent of their claims. It is believed this proposition will



INDESTRUCTIBLE STEEL WHEEL CO. OFFICIALS DEMONSTRATING THEIR PRODUCT

be accepted. Mr. Hathaway, of the Muncie Auto Parts Co., is permanently at Charlotte in the interest of the creditors.

**Flinn an Acme Man**—Welton H. Flinn has closed with the Acme Motor Car Co., of Reading, Pa., to represent it in the metropolitan district and will have his headquarters in New York city.

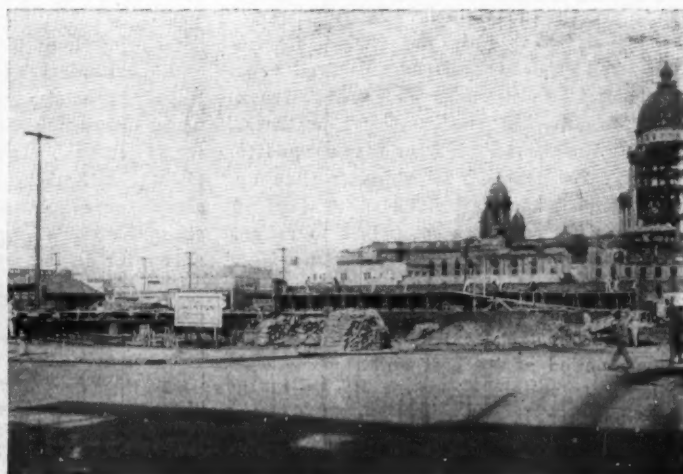
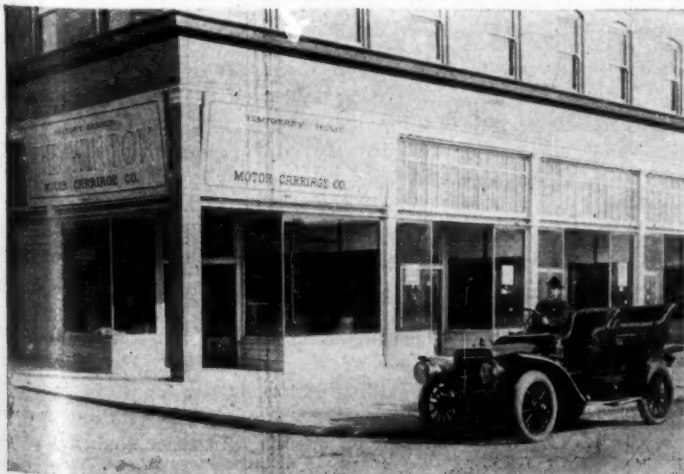
**Schebler's New Plant**—The new Schebler carburetor plant at Indianapolis is remarkable for the fact that no fire insurance is carried on it, it being of armored concrete construction throughout and with the largest concrete arches in the world. It has been occupied since July.

**Seek New Dragon Site**—Officials of the Dragon Automobile Co., including John Kane Mills, president; Henry Rawle, treasurer, and A. L. Kull, sales manager, have been in New England for 2 weeks or more investigating several plants which have been offered to them as new homes of the Dragon. The company has been considering moving from Philadelphia for some time and plans have been under way for the removal and at the same time an expanding of the Dragon plant. In the meantime the perfecting of the new Dragon runabout which, with the standard touring car, will be the only types put on the market by the Dragon company in 1908, has been carried forward at the Philadelphia factory and testing of the

new 36-horsepower roadster has been going forward with satisfactory results. The first view of the car by the public will be had at the coming palace show in the Dragon company's booth.

**Winton in 'Frisco**—Photographs received from the Pacific coast show the temporary and branch locations of the Winton Motor Carriage Co. in San Francisco. C. M. Brown, formerly manager of the Chicago branch, is in charge of the new establishment.

**Rainier Election**—Some slight changes in the personnel of the Rainier Motor Car Co. have just been made, following the erection of the new factory at Saginaw, Mich. At the annual meeting held at the New York offices two members were added to the board of directors, and the office of second vice-president and chief engineer was created and filled by the election of the Rainier designer, James G. Heaslett. The new directors are Jack A. Rainier, son of John T. Rainier, and Harry T. Wickes, of Saginaw, Mich. The others in the following full list of officers are re-elected incumbents, all of New York: John T. Rainier, president and treasurer; Paul N. Lineberger, vice-president and general manager; James G. Heaslett, second vice-president and chief engineer; directors, J. T. Rainier, Paul N. Lineberger, J. A. Rainier, H. T. Wickes, G. C. Comstock.



TEMPORARY AND PERMANENT BRANCHES OF WINTON MOTOR CARRIAGE CO. IN SAN FRANCISCO

## DETAILS OF ENGLISH COMMERCIAL TRIALS

OWING to lack of space Motor Age has not reported in its last two issues the general progress of the commercial vehicle trials in England but publishes herewith a short day-to-day story of the contest, starting with the fourth day, the 3 first days having been covered in an earlier issue. On the first day's run forty of the fifty-six starters made a non-stop run of it, not one of the machines dropping out on the opening day, although sixteen of them lost time varying from 2 minutes to nearly 3 hours. The Turgan delivery van, which lost 145 minutes, retired on the second day's run and at the end of the second day only twenty-nine had non-stop records whereas on the third day 36 cars had made a non-stop performance for that day. To sum up for the first 3 days but twenty-two cars made a non-stop on the first 3 days and but one retired.

For the fourth and fifth days, the Thursday and Saturday of the first week, one other machine retired, namely the Milnes-Daimler box van, which vehicle dropped out because its gear ratio was not suited for the very heavy hills encountered. Another vehicle to find its 15-horsepower engine too light for its 3-ton load was a de Dion truck. To sum up the first week's run, two vehicles out of fifty-six retired—dropped out of the test—and but fifteen of this number succeeded in making non-stop runs on each of the five trips. Those making these performances were Darracq, Unic, Lacre, Darracq-Serpollet, Dennis, Durham-Churchill, Hallford, Wolseley, Straker, Churchill, Dennis, Thornycroft, St. Pancras, Burrell and Commercial Cars.

At the end of the second week's run after each car had made its 10 days on the road but ten of the original fifty-six had continued to make non-stop runs, meaning that day in and day out for this trip they had not lost a minute of their scheduled time or had they experienced mechanical difficulties of a serious nature. These ten are the Unic van, a French entry; the Lacre box van; the Dennis covered van, with its worm drive; the Hallford truck; the Siddeley canvas-covered tilting body wagon; the Straker-Squire open van; the heavy Dennis covered van; Commercial Cars truck; Thornycroft truck and the St. Pancras steam lorry or truck. During the second week the cars seemed to make daily non-stop trips better than on the first week and through the 5 days of running but one was compelled to retire, it being the Turgan delivery van which fell a victim to bad driving. From the start this van was badly handled. The brakes were poorly adjusted, the motor never pulled at its best and the car was always traveling with a trail of black smoke after it. The end came through the breaking of a universal joint in the driveshaft, which trouble could have been avoided had the driver been alert and

watching his machine. The withdrawal of the machine was regretted by all of the other contestants.

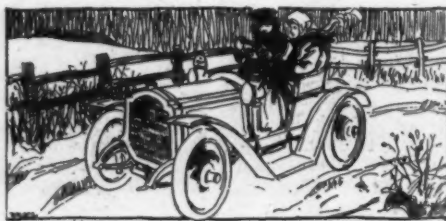
At the end of the third week eight of the original fifty-six cars had succeeded in making every day's run from the start a non-stopper. The fortunate machines in this class were: Unic, Lacre, Hallford, Siddeley, Straker-Squire, Commercial Cars, Thornycroft and the St. Pancras steam car. The two to lose perfect scores during the third week were two Dennis covered vans, one of which lost 5 minutes on 2 days and the other lost 3 minutes on each of 2 days. All told four cars were put off the road in the 3 weeks' run, these being two Turgans, a Milnes-Daimler and the Straker-Squire canvas-covered tilting wagon. As time passed and the cars became accustomed to the roads there were more cars each day to make non-stop runs. On the third Saturday twenty-nine cars came through without losing time, on the third Wednesday forty-four cars had clean sheets and on practically every day of the third week the cars showed up better than they did the first week, which must be considered due to the experience of the drivers and the construction of the truck. With but four cars retired in a 3-weeks' run over country roads with heavy loads out of a total of fifty-six machines is an excellent record and one which has more than surprised many of the most sanguine enthusiasts of commercial motoring. On the run of the third week every one of the heavy steam tractors made perfect trips each day, on the second week only one of them lost time, which amounted to 5 minutes on 1 day but on the first week five of them had time losses marked up against them. This performance tells the general story of the contest, namely, that as time passes the cars are showing up better rather than poorer.

The tests are daily showing up the little weaknesses in motor car build and of these none appears greater than brake weaknesses. Many makers have sent their cars out with undersized brakes and as a result one or two machines have taken fire when descending long grades. Country roads, and particularly those selected by the Royal Automobile Club, abound in hills, many of which are greater than those found in the English and continental cities, and while they may appear too steep for regular commercial work they show the kinds of roads that a truck may encounter during its lifetime and on which

it should be capable of handling its load. As a result many makers are already increasing the sizes of the brakes on models to be brought out and others are going to put larger sizes on their present cars.

Next to brakes is the troubles with tires. Every night cars come in with back tires loose on the rims and which tires must be replaced before the cars can start the run of the following days. Some of the under-powered machines have continued to go up the steepest portions of hills on the reverse and even going in this unusual manner one or two extra attempts are frequently required before the grade is conquered. Little attention is paid to boiling radiators by some of the makers, the rule being similar to that on the London buses where the radiator caps are left off and steam is being emitted all of the time. Not a few radiators have been injured by stones being thrown up against them. One car had its fan put out of commission by stones hitting the blades and bending them so that they struck the radiator. The majority of the heavy steam cars take the hills easily. Many of the gasoline cars take them in good shape but one or two of the motors begin pounding before the top of the hill is reached. Many of the climbs encountered so far measure 4 or 5 miles in length and although the average grade is low there are in them several steep ascents with sharp curves in them. It is on these hills that the water in the radiators is brought to the boiling point. On the twentieth day out a brake test was indulged in. This test was on a descent of one in eight or 12½ per cent. Both brakes were allowed to be used together and the distance noted in which the car was brought to a standstill. On another brake test the cars were run freely over a measured course and the brakes applied by signal. Some drivers brought their machines to a standstill in 4 yards, others in 7 yards and still others in 12½ yards. In this test much skidding occurred, due in cases to a too rapid application of the brakes and in other instances to poor handling of the vehicle.

Here are a few of the troubles experienced on the runs: Turgan retired by breaking a clutch fork; Milnes-Daimler retired by being geared too high; Straker-Squire retired for breaking a rear axle bearing and steering gear troubles; Turgan retired for trouble with its clutchshaft and gears. Minor troubles resulting only in loss of time were: Replacing center bolts on rear springs, replacing radiators, breaking fan belts, leaks in lubricant pipes, adjusting brakes, coil troubles, carburetor jets choking, gasoline pipes breaking, breaking of torsion bar for wheel bearings, make-and-break ignition parts and adjustment on chassis. To these could be added those every-day occurrences of dirty spark plugs and time spent in lubricating.







# BRIEF BUSINESS ANNOUNCEMENTS



**New York**—The Longacre Motor Co. has been incorporated with a capital stock of \$1,000.

**Buffalo, N. Y.**—Plans have been filed for the addition to the garage of John W. Gibbs at 475 Norwood avenue.

**New York**—R. G. Howell has organized a new company to handle the Northern. He will have his headquarters at 1637 Broadway.

**Newark, N. J.**—The Brush-McLaren Motor Co., which has the state agency for the Brush runabout, will in the future handle the F. N. motor cycle.

**Pittsburg, Pa.**—Application will shortly be made for a charter for the new Maxwell agency, which is to be known as the Maxwell-Briscoe-Pittsburg Co.

**New York**—The Broadway Mammoth Automobile Exchange, dealer in second-hand cars, has removed to large quarters at 239-245 West Fifty-sixth street.

**Chicago**—C. S. Gibson has been added to the force of the Chicago Motor Car Co., which has the agency for the Packard. Gibson formerly was connected with the Standard Automobile Co., of Pittsburg.

**Rochester, N. Y.**—The Faber Sulky Co. is erecting a new building, and as soon as it is completed will add a new department to its business. The new structure, which is located on Main street, east, will be devoted to the repairing and fitting of tops and storm fronts for motor cars, and also to the painting of bodies.

**Utica, N. Y.**—The Electrical Garage Co. has removed from 128 Columbia street to larger and more commodious quarters at 7 Court street. While making a specialty of electric vehicles, still the concern has made every arrangement for the needs of gasoline cars, and a special department will be devoted to their needs.

**Dayton, O.**—W. E. Barton, of the Barton Mfg. Co., Springfield, has bought the plant of the King Top Mfg. Co., and in the future the business of the two concerns will be united. The two plants will be run separately until the new buildings of the King company being erected on South Main street are completed, when the entire business will be consolidated and the Springfield plant closed down.

**Providence, R. I.**—The new garage for the Crane Automobile and Garage Co. has been completed and will be known as the Elmwood garage. It is a two-story building, the first floor to be occupied by the garage and storage rooms, while the second is to be given over to the office and supply rooms, and the waiting and chauffeurs' quarters. The repair shop is to be located in a separate building in the rear of the main structure. Howard and William J. Braitsch are the members of the

firm. The company has the agency for Rhode Island and Bristol counties, Massachusetts, for the Deere and Atlas.

**New York**—R. M. Owen & Co., selling agents for the Reo and Premier, announce their removal to 1759 Broadway.

**Harrisburg, Pa.**—The Maxwell Motor Car Co. has opened a new garage at 904-8 Market street under the management of J. E. Sellers.

**Cincinnati, O.**—Coldeway & Duebel are located in their new garage at 808-810 Elm street. They have taken the agency for the Brush runabout.

**Riverhead, L. I.**—William F. Morell is about to erect a new garage on Peconic avenue. George Morell will be the manager of the establishment.

**Rochester, N. Y.**—A new garage has been opened at 265 Alexander street by the Littlejohn Brothers. It will be known as the Alexander street garage.

**Minneapolis, Minn.**—The Barclay Auto Co. has been enlarged by the admission of a new partner. In the future H. A. Peterson will be associated with J. J. Barclay, the original member of the firm.

**Milwaukee, Wis.**—Dr. L. F. Schreiber, of the Schreiber Motor Car Co., is building a garage on Fifth street, between Grand avenue and Wells street, which will be devoted entirely to the interests of the Locomobile.

**Houston, Tex.**—The first meeting of the stockholders of the Empire State Motor Co. was held recently and the following officers were elected: President, John H. Kirby; first vice-president, B. F. Bonner; second vice-president and general manager, Ray Weiss; secretary and treasurer, W. M. Baugh. In addition to handling

several makes of cars, it is the intention of the company to make a specialty of motor boats.

**New York**—The schedule in bankruptcy of Paul Snutsel shows assets of \$4,049 and liabilities of \$10,606.

**Seattle, Wash.**—The Northwestern Motor Co. has increased its capital stock from \$15,000 to \$50,000.

**Richmond, Va.**—A fire in the garage of B. A. Blenner, on West Broad street, destroyed two cars and did damage amounting to \$2,000.

**Milwaukee, Wis.**—Richard Gore, the manager of the Auto Exchange and agent for the Jackson, announces he will erect a new garage next season.

**Newark, N. J.**—Raymond S. Joo has closed his garage at 79 Orange street and in the future will be connected with the Roseville Motor Car Co., of Orange and Fourteenth streets.

**Columbus, O.**—Fred W. Kohl, formerly connected with the Hartford Rubber Co., has been engaged as the manager of the Kohlhuss Motor and Parts Co., which will have its headquarters at 1918 Euclid avenue in this city.

**Amherst, Mass.**—Negotiations are under way with a rubber tire concern, and it is probable that the new industry will shortly be located in the old Kelloggville factory building, which was recently bought by E. D. Marsh.

**Plainfield, N. J.**—Edward B. Ryder has completed all plans for the establishment of a motor bus line between this town and South Plainfield, and will inaugurate the service on Monday next. Trips will be made every hour.

**Newark, N. J.**—The Standard Motor Car Co. has secured temporary quarters at 237 Halsey street. The concern will handle the Autocar. Inglis M. Uppercu, formerly connected with the Motor Car Co., of New Jersey, is to be the manager.

**Charleston, S. C.**—T. B. Jenkins has bought part of the Mason property on South Main street and will erect a garage. It is also his intention to engage in the manufacture of motor car specialties and supplies. Mr. Jenkins is now located on North Main street, but expects to have his new establishment open by spring.

**Detroit, Mich.**—On the application of Peter Schulte, Judge Mandell has ordered that a receiver be appointed for the Brooke Motor Car Co., a concern which was organized to manufacture motor cars, but which never succeeded in getting beyond the experimental stage. Mr. Schulte says he got a judgment against the company, but that it was never satisfied. The name of the receiver has not yet been announced by the court.



**Cleveland, O.**—The Garford Motor Car Co.; capital stock, \$50,000.

**Cleveland, O.**—Leonard Motor Co.; capital stock, \$10,000. Incorporators, H. H. Leonard, L. B. Fauver and M. M. Heath.

**New York**—R. G. Howell Co.; capital stock, \$10,000; to deal in motor cars. Incorporators, R. G. Howell, J. G. Batten and L. W. Batten.

**New York**—Motor Rolling Chair Co.; capital stock, \$100,000; to manufacture motor rolling chairs. Incorporators, K. A. Wilbur and C. D. Montague.

**Jefferson City, Mo.**—Moon Motor Car Co.; capital stock, \$175,000; to do a general motor vehicle business. Incorporators, J. W. Moon, Stewart McDonald and H. C. Hopkins.

**Trenton, N. J.**—Home Tire Co.; capital stock, \$25,000; to make and sell rubber tires and inner tubes for motor cars, bicycles and other vehicles. E. W. Moore, Jr., is named as the resident agent.

**East Orange, N. J.**—Standard Motor Car Co.; capital stock, \$100,000; to manufacture motor cars, engines, etc.



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Must be a lot of merit in the new Winton Six-Cylinder Six-Teen-Six to draw praise like that from veterans of the steering wheel—men who have had ones, twos and fours, air-cooled, water-cooled, two-cycle, four-cycle, steamers, electrics and gasolines. Must be a pretty smooth automobile.

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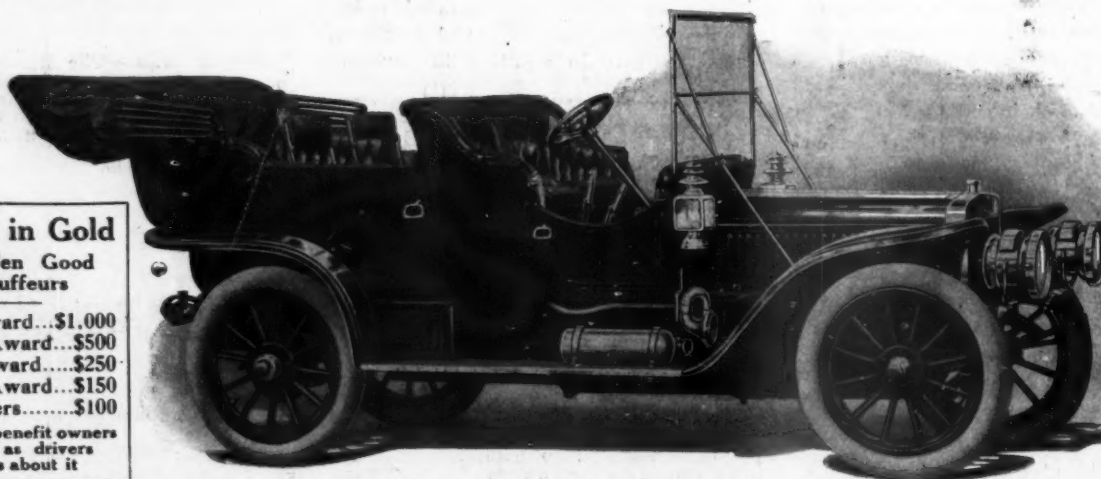
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